



BOROUGH OF KEIGHLEY.

ANNUAL

REPORTS

OF THE

MEDICAL OFFICER OF HEALTH

AND THE

BOROUGH SANITARY INSPECTOR

FOR THE

YEAR ENDING DECEMBER 31ST,

1911.

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Keighley:

WADSWORTH & CO., THE RYDAL PRESS.



## Health Committee.

THE WORSHIPFUL THE MAYOR.

SAMUEL CLOUGH, ESQ., (*Chairman*).

ALDERMAN JOHN SMITH. ALDERMAN J. W. MIDGLEY. COUN-

CILLOR J. MULLEN. COUNCILLOR H. WHITEHEAD.

COUNCILLOR H. V. ROBINSON. COUNCILLOR R. SMITH.

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### STAFF OF THE HEALTH DEPARTMENT :

**Medical Officer of Health and School Medical Officer :**

WILLIAM SCATTERTY, M.A., M.D., D.P.H.

**Chief Sanitary Inspector and Superintendent of Public Cleansing :**

J. C. DAWES, A.R., *San. Inst. and Certificated Inspector of Meat, etc.*

**Assistant Sanitary Inspectors :**

\*JOHN FOY, *Cert. R. San. Inst.*

\*R. J. RAYNER, *Cert. R. San. Inst.* W. HANSON (*Clerk-Assistant*)

**Assistant Superintendent of Public Cleansing :**

CHARLIE ROBINSON.

**Clerks :**

BAILEY THORNTON.

THOMAS BEDFORD.

**Health Visitor :** FRANCES H. HOLMES, A.R.SAN.I.

**Veterinary Inspector :**

GEO. W. CARTER, F.R.C.V.S.

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\* Also qualified Inspectors of Meat, etc.



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THE  
ANNUAL REPORT  
OF THE  
MEDICAL OFFICER OF HEALTH  
FOR THE  
BOROUGH OF KEIGHLEY.

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TOWN HALL,  
KEIGHLEY, 1ST MARCH, 1912.

TO THE MAYOR, ALDERMEN, AND COUNCILLORS.

GENTLEMEN,

I beg to lay before you my Annual Report on the Health and Sanitary conditions of the Borough.

The period embraced in the Report extends from 1st January to December 31st, 1911.

This is the 30th Annual Report presented since the incorporation of the Borough in 1882, and the 20th I have written as your Medical Officer of Health.

During those 20 years the Sanitary condition of the town has greatly improved and the scope and work of the Health Department greatly extended. As showing some of the advances made for the betterment of the people there may be mentioned the following:—

1. Oldfield water filtration works constructed (1893).
2. Small-Pox hospital opened (1893).
3. Sewage farm laid out at Marley on the principle of intermittent downward filtration (1894).
4. Council adopt the principle that all new houses shall have a W.C. in place of the tub-closet (1894).
5. All parts of the Borough supplied with water from the public mains (1896).
6. Infectious Diseases Hospital opened (1896).

7. Appointment of Veterinary Surgeon to regularly inspect all milk cows in the Borough and report thereon. Increased supervision of cowsheds, milk and meat supplies (1898).
8. Official Representation of Westgate as an insanitary Area (1899).
9. Appointment of Lady Health Visitor to work for the reduction of infant mortality (1908).
10. Adoption of Notification of Births Act (1908).
11. Voluntary notification of Phthisis (1908).
12. Sewage sedimentation tanks and "Bacteria filters" completed (1911).
13. Sladen Beck waterworks extension commenced (1911).
14. Declaration of Westgate Area as an insanitary Area (1911).

This list, though far from complete, is evidence of considerable activity in various departments of Corporation work, and there now remain to be recorded some items on the debit side of the Public Health Ledger which I am anxious to see brought to a successful issue before my account closes. Of these attention need only be drawn to three which have had to be "carried forward" annually since I brought them to your notice fifteen years ago.

1. Adoption of water carriage of excreta in place of the tub-system in every house.
2. Erection of a public abattoir and better means for meat inspection. (A site was purchased in 1899).
3. Demolition of insanitary property in Westgate and the opening up of that insanitary area.

During the 20 years above referred to the population has risen from 30,800 to 43,600, and notwithstanding this increase, both births and deaths for the present year stand at practically the same figure as 20 years ago. As will be seen later in the Report, this represents a fall of 11 per thousand in the birth-rate, and 6 per thousand in the death-rate of the Borough. The latter decline is satisfactory to us as individuals as well as sanitarians, since it represents a saving for the past year alone of not less than 250 lives, while the former, though perhaps less interesting to Sanitarians, is still of vital importance to us as a Nation.

## **A.—Natural and Social Conditions of the District.**

### **(1) Physical Features and General Character of the Borough.**

The Borough of Keighley is situated at the confluence of the River Aire with the River Worth. Though the Town Hall

square is 365 feet above sea level, the town lies at the junction of three valleys, bounded by Rombalds Moor on the North and East, and spurs of the Pennine Range on the West and South. As the town grows, building extends up the hill-sides, so that the Borough is now co-terminous with and includes the hamlets of Hainworth, Thwaites Brow and Braithwaite. Thus the height above sea level varies from 300 to 950 feet. The area of the Borough is 3,902 acres, about one half being Urban in character, the other half Rural.

The geological stratum upon which the Town stands is mill-stone grit, that is, a hard sandstone found in the coal measures. This stone is quarried from all the hill-sides surrounding the town, and from it, with some half-dozen exceptions, all the houses are built. The soil may be shortly described as loam, clay and gravel, and the sub-soil, clay and grit. The physical geography of the district combined with the clay-subsoil tend to favour the prevalence of such complaints as Rheumatism and Follicular Tonsillitis, but otherwise the locality from its elevation and proximity to the moors, is bracing and healthy.

## (2) Population, Area, &c.

Intimately connected with the administration of Public Health work are the recently published Census returns. At the Census of 1891 the population was 30,811, or allowing for the subsequent extension of the Borough boundary 35,000. In 1901 it was 41,564, an increase of 6,564 for the ten years. Though it was not expected that the same rate of increase would continue during the next inter-census period, every one counted upon the population reaching 45,000 in 1911. The actual figure, however, was 43,490, an increase of only 1,926. When, however, allowance is made for non-residents in Infirmary and Workhouse, and for 80 Keighley children temporarily housed in the Fever Hospital when the Census was taken, a more exact estimate would be 43,550. Even after full allowance is thus made, the decennial increase is still less than one third of the previous decennial increase.

In trying to find how the population for the past few years has been overestimated, one notes that in 1901 there were 41,564 persons living in 9,123 houses, or an average of 4.55 persons per house. During the inter-census period 970 new houses were built and occupied, and about 120 closed for improvements or because they were unfit for habitation. This leaves 850 additional inhabited houses, which at 4.5 per house yields 3,800 additional inhabitants. Further, the natural increase, that is the excess of births over deaths, was 3,410, so that by both methods of reckoning an estimated population of 45,000 seemed fully justified.

The 1911 Census showed the number of inhabited houses to be 10,098, an increase of 975, but the average number of persons per house had fallen to 4.306. Thus in spite of the increased number of houses and the corresponding excess of births over deaths, the expected increase in population was not forthcoming, and the only possible explanation is the unusual exodus to neighbouring districts, or what is more probable an abnormal amount of emigration.

Area of Borough—3,902 acres.

Rateable value—£201,113.

1d. in the pound realises £726 on the General District Rate.

Relief of the Poor and other expenses of the Guardians 1s. 1 $\frac{3}{4}$ d. in the pound.

### (3) Social Conditions and Employment.

The town depends almost entirely upon its manufacturing trade. The chief industries are Woollen Manufacturing, Combing, Spinning, Weaving—for which it ranks next after Bradford and Halifax—and Machine Making, for which it takes first place. It also possesses extensive iron foundries and machine tool making, Laundry Machine, Washing and Sewing Machine Works. A very large proportion of female labour is engaged in the various branches of the Woollen Industry, while the iron works and various forms of Machine making, afford employment to the bulk of the male population. The ready employment for female labour in the mills is of interest in helping to account for the increasing proportion of females over males as shown in the Census returns thus:—

|              | No. of Males. | No. of Females. | Excess of Females |
|--------------|---------------|-----------------|-------------------|
| 1901 ...     | 19758 ...     | 21806 ...       | 2048              |
| 1911 ...     | 20479 ...     | 23011 ...       | 2532              |
|              | <hr/>         | <hr/>           | <hr/>             |
| Increase ... | 721           | 1205            | 484               |

Whether this increase in females is at any particular age-period or not is not yet published, and whether it has any bearing upon the diminishing birth-rate must therefore remain unsettled for the present. The figures too respecting age and occupation, are not yet published for Non-County Boroughs, but it is well to remember that in Keighley in 1901 there were 36 per cent. of boys and 33.6 per cent. of girls aged 10 and under 14 years in employment. This high percentage was exceeded by only two districts in Yorkshire.

The economic aspect of the half-time system need not be discussed here, but one cannot escape the conclusion that the employment of over one-third of our children aged 10 and under 14 must affect detrimentally their mental or physical development, and therefore must have a distinct bearing upon

Public Health and the general well-being of the community. There is no evidence to show that any particular occupation has a baneful influence on employees, although it will appear later in the report as if the large proportion of premature births may be connected with the late employment of expectant mothers. Further, it does not seem as if fluctuations in trade had any great effect on the general health of the community. This is probably due to the fact that the varied nature of the town's industries renders it unlikely that all should be slack at the same time, so that a depression in the woollen trade affecting female labour might still leave the male population sufficient earning power to secure the necessities of life. During the past year willing workers have not had to complain of unemployment, and consequently we cannot attribute any degree of sickness to industrial depression.

## **B.—Sanitary Circumstances of the District.**

### **(1) Water Supply.**

The Keighley Waterworks is an undertaking entirely in the hands of the Corporation. The water supply is derived from upland gathering grounds on Stanbury, Trawden, Oakworth and Haworth Moors, on the borders of Lancashire and some five to eight miles west of Keighley. Comprised in the Scheme are (1) Watersheddles, a high level storage reservoir situated 1,100 feet above sea-level,  $27\frac{1}{2}$  acres in extent, with a capacity of 156,000,000 gallons. (2) Ponden, a millowners' compensation reservoir on the head waters of the River Worth, two miles down the valley from Watersheddles, with an area of 30 acres, and a capacity of 212,500,000 gallons. (3) Blackhill service reservoir, 800 feet above ordinance datum and a capacity of 2,500,000 gallons. The gathering ground for Watersheddles, 1,600 acres in extent, is mostly moorland overlying millstone grit.

The water is naturally very pure but soft, having a hardness of  $1\frac{1}{2}$  degrees. To prevent any possible pollution from surface manuring, the Corporation purchased and control not only the moorland, but the cultivated land adjoining the gathering ground.

Like all moorland waters, it has a slightly brownish colour from the peaty gathering ground, and an acid reaction produced by certain bacteria present in the humus. The peaty colour is objectionable merely on aesthetic grounds, but the acid possesses distinctly plumbo-solvent powers. To remove the colour, therefore, and to assist in neutralising the dangerous acid, the water is conveyed from Watersheddles to Oldfield in an iron pipe, 12 to 18 inches in diameter, and there submitted to careful filtration. The Oldfield Filtration Works, completed in 1893, consist of three Polarite beds, four sand

filters and one clean water reservoir. Each Polarite chamber contains 2 feet 6 inches of polarite, while the filtering media in the sand filters consist of 18 inches of hand-packed rubble sandstone, 6 inches of 4 inch broken sandstone, 3 inches of  $\frac{3}{4}$  inch to  $\frac{1}{4}$  inch gravel, and 18 inches of sand, that is, a total depth of 4 feet. The water passes through the filters at a rate of 500 gallons per yard per 24 hours. Of the four sand filters, three are always working while the top layers of the fourth are being washed. In this way over two million gallons of water are passed into the clean water reservoir daily. To further neutralise the peaty acid and obviate the risk of plumbo-solvent action going on in the lead service pipes, varying quantities of ammonia alkali (carbonate of soda) are added hourly.

From Oldfield, after filtration and treatment with alkalis, the water is distributed to consumers, the greater part being conveyed to Blackhill service reservoir, whence from an altitude of 800 feet it can be delivered to practically all parts of the Borough.

The past year has tested the resources of the Water Committee in two very important ways, involving both the quantity and the quality of the supply. First the unprecedented drought called for careful nursing of the supply to prevent a water famine. Few towns were more successful in this respect. With the exception of a few nights there was an uninterrupted supply for all domestic purposes, the only restriction being against street swilling and needless waste. Committee and consumers are alike to be congratulated upon their foresight and moderation, as well as upon their escape from the trials and diseases dependant on a scarcity of water.

The second difficulty to be met by the Water Committee was much more subtle and no less dangerous. During the summer drought there was a gradual diminution in the amount of organic acid in the water, followed, when the heavy rains came, by an enormous increase in the degree of acidity, which, if not completely neutralised, would have caused general lead poisoning among the consumers. Such a contingency, however, being foreseen, steps were taken to gradually double the amount of alkali added hourly and the plumbo-solvency was prevented.

As you are aware, bacterial activity during warm weather goes on uninterruptedly, and as long as drought continues the organic acid so produced accumulates in the peat until washed out by heavy rainfall. How the climatic conditions last year favoured this cycle may be seen from a consideration of the following facts:—

|                |     |      |                            |                                 |                       |
|----------------|-----|------|----------------------------|---------------------------------|-----------------------|
| During January | ·8  | C.C. | <sup>N</sup> <sub>50</sub> | Na <sub>2</sub> Co <sub>3</sub> | neutralised the acid. |
| „ February     | ·8  |      |                            | „                               | „                     |
| „ March        | ·8  |      |                            | „                               | „                     |
| „ April        | ·9  |      |                            | „                               | „                     |
| „ May          | 1·0 |      |                            | „                               | „                     |
| „ June         | ·8  |      |                            | „                               | „                     |
| „ July         | ·7  |      |                            | „                               | „                     |
| „ August       | ·6  |      |                            | „                               | „                     |
| „ September    | ·5  |      |                            | „                               | „                     |
| „ October      | ·4  |      |                            | „                               | „                     |
| „ November     | 1·2 |      |                            | „                               | „                     |
| „ December     | 1·2 |      |                            | „                               | „                     |

Before the rains came in the end of October the hourly addition of 14 lbs. of ammonia alkali per 1,000,000 gallons produced sufficient alkalinity to prevent any erosion or plumbosolvent action on lead service pipes, by Christmas three times as much was required to produce a similar result.

As stated in last year's Report, weekly record was kept of the degree (1) of acidity at Oldfield before treatment, (2) of alkalinity in the towns mains after treatment, and although for months at a time there may appear no need for such analysis, sudden changes in temperature and rainfall are capable of producing very injurious but readily preventable results. In connection with this subject it may not appear inopportune to suggest that better means for laboratory work be provided than are at present available at the Town Hall.

## EXTENSION OF WATER WORKS.

Reference may here be made to the Bill soon to be laid before Parliament for impounding the waters of the Sladen Beck and the construction of a large service and compensation reservoir at Lower Laithe. Originally it was intended to construct two separate reservoirs, one at Bully Trees to supplement present supply, the other lower down the Beck at Lower Laithe to serve as a compensation reservoir for Worth Valley millowners. Preliminary boring, however, showed the proposed storage reservoir at Bully Trees to be impracticable from geological reasons, and that the reservoir must be abandoned.

It may not be inopportune to suggest (a) the desirability of constructing tanks into which storm-waters may be turned, so as to allow sedimentation of peaty debris, which otherwise would be carried into the reservoir to form, as in Watersheddles reservoir, an everlasting manufactory of acid. (As pointed out in former reports thousands of tons of peat are deposited in Watersheddles, and from this deposit plumbosolvent organic acid is continuously being formed).

(b) The desirability of separately impounding the water

from neutral and alkaline springs and conserving it to mix with and neutralise what is used for drinking purposes instead of allowing it to feed the reservoir and pass over for purely compensation purposes.

The average daily consumption of water for domestic and trade purposes, except during the latter part of the drought, was about 30 gallons per head of population. There are about 10,100 houses in the Borough, and of these some 9,650 have the town's supply, leaving approximately 450 dependent upon private supplies. Outlying cottages and farms, from their remote situation and elevated position, cannot readily be supplied otherwise than by springs and shallow wells. Pollution by surface manuring of agricultural land is of course a continual source of danger in these cases, but only in one instance have doubts as to its purity called for the provision of a more satisfactory supply.

## **(2) Rivers and Streams.**

The subject of river pollution is not an urgent one in the district. Since practically all drains are now connected with sewers there has been considerable improvement in the River Worth. At times objection has been taken to the condition of the small streamlet from Glen Lee, in which evidences of domestic sewage have been found and to which attention is now being directed. In its passage through the Westgate insanitary area the North Beck is frequently made the dumping ground for straw mattresses, old clogs, dead cats, &c., but house drain connections to the sewer in the bed of the Beck prevent liquid forms of pollution. It is hoped the Westgate Improvement Committee will see its way to pave and culvert the Beck throughout the area before very long.

## **(3) Drainage, Sewerage and Sewage Disposal.**

### **(a) HOUSE DRAINAGE.**

The routine with regard to house drainage continues the same. Whenever defects are detected as the results of complaints, from the systematic inspection of houses in which there has been infectious disease, or from the inspection of houses abutting on streets preliminary to paving, then the drains are thoroughly tested and made good to the satisfaction of the Sanitary Inspector, and before the street paving is completed. As giving some idea of the amount of inspection and drainage work done during last year, it may be mentioned that nearly 700 houses were inspected because of infectious disease occurring in them, and all the houses abutting upon 316 lineal yards of street paved during the year. Further details will be found in the summary on page 11, and in the appended Report of the Sanitary Inspector. At outlying cottages and farms where sewerage is impracticable, the sewage is drained into sumps and on to agricultural land.

*(b) SEWERAGE.*

The sewerage of the town is completed in the sense that all house drains are connected to sewers which converge to an outfall sewer discharging at the sewage farm and sewage disposal works at Marley.

The principal sewers are composed of brick or pipe, and are perfectly satisfactory, but the older and less important sewers are built of stone with rounded bottoms, and though they appear efficient they are no longer considered up-to-date, and therefore are gradually being replaced by modern pipe sewers. In this sense finality is never reached, and 779 lineal yards of sewers were laid in 1911.

*(c) SEWAGE DISPOSAL.*

The sewage farm, comprising 60 acres, of which 50 are laid out in beds, is worked on the intermittent downward filtration principle. The land having become sick, further means for the effectual treatment of the sewage became necessary, and after inquiry by the Local Government Board sanction was given to the borrowing of £26,500 for the new works.

The new works, formally opened last July, consist of a new level outfall sewer along Airedale Road and Marley Old Road, three open septic or sedimentation tanks and twelve percolating "bacteria filters." The outfall sewer is 3 feet by 2 feet, egg shaped, with a capacity running fall of  $6\frac{3}{4}$  million gallons per day. The sedimentation tanks are 200 feet by 59 feet by 6 feet 6 inches deep, each tank being divided into three sections for cleansing purposes. The combined capacity is equal to 75 per cent. of the total daily dry weather flow of sewage from the area drained. In the tanks the sewage is subject to settlement and septic bacterial action, and after passing over a weir at the end of each tank is conveyed by an elevated conduit to twelve circular percolating "filters," 100 feet in diameter and 6 feet deep, over which it is distributed by revolving sprinklers worked automatically by the head of sewage in the conduit. The medium in the "filters" is slag in 8 and broken sandstone in 4. The floor of the filters is formed of concrete with rendered surfaces sloping to the outside. They are covered with aerating floor tiles, to allow free access of air to the medium. The effluent is collected in channels round the filters, and, though fairly satisfactory, is conveyed to the main carrier of the existing sewage farm for final treatment on the land. The sludge deposited in the tanks is for the time being removed through sludge valves and discharged into lagoons on some adjoining low-lying land.

**(4) Closet Accommodation.**

The water carriage of night soil is somewhat slowly, yet steadily, replacing the antiquated insanitary tub closet. The

defects, both sanitary and economic, of the old conservancy system seem now fully recognised by all except those interested in maintaining the present offensive method. Some seventeen years ago the Council affirmed the principle of one house one closet, and the Health Committee act on those lines when defective or insufficient privy accommodation is officially brought to their notice. Hitherto the Committee has mostly dealt with cases of dilapidation and insufficiency, i.e., where two or three families go to one tub closet, but as these disappear, it is to be hoped that similar action will be taken in every case where a tub closet is found. No one can seriously defend the presence of a foul-smelling collection of night soil, planted often not more than two feet from the living room window. Ventilation in such instances is out of the question, unless one is prepared of two evils to choose the greater.

Special provisions in the Keighley Act of 1898 give practically the same powers as Sect. 39-42 of the Public Health Acts Amendment Act, 1907, for the conversion of the privy closets into water closets, and I have yet to meet the tenant who does not pray for the speedy removal of those obnoxious relics of bygone days. Tenants see progress being made in every other form of municipal enterprise and cannot readily understand why any Health Authority should perpetuate a disagreeable insanitary and antiquated system. The fact that 205 houses have been provided with separate modern washdown water closets during the year justified the claim of others to have similar consideration shown to them.

There are still in use some 3,100 excreta tubs, practically all of which, with the exception of a few at outlying houses near the Borough boundary, or at farm buildings, are emptied weekly. There are no privy middens in the town, nor, if we except farm yard and stable manure heaps, are there any left in the Borough. With regard to those stable middens it is a question for serious consideration how far strict compliance with our Bye-laws should not be insisted upon. For those in the town weekly emptying would greatly diminish the summer prevalence of the deadly house fly, and therefore tend to lessen the risks of summer diarrhœa among bottle-fed babies, but in the rural parts of the Borough similar treatment, though theoretically sound, would practically mean making manure heaps in the fields, and therefore be equivalent to the dubious principle of robbing Peter to pay Paul.

#### (5) Scavenging, &c.

The *scavenging* of all paved streets is carried out by a special cleansing staff under the Cleansing Superintendent.

In addition to streets there are 4,000 street gullies in the town, and these are now cleansed out monthly. The time and

care spent upon this department of sanitary work have considerably increased during the past year, and while the social amenities are enhanced thereby, there can be no doubt but that the general health of the community is correspondingly improved. The Borough Engineer, acting for the Highways Committee, supervises the work of cleansing North Street, and all macadam roads, i.e., the highways in the rural parts of the Borough.

The *removal of house refuse* is also receiving increased attention. There are considerably over 8,000 ash tubs in the Borough, two-thirds of which are emptied at least once a week, the remainder fortnightly. Efforts are being made to remove domestic refuse twice a week in the centre of the town, and all efforts tending towards the speedy removal of decomposable material from our midst should be encouraged. As already stated, there are few middens of any description left in the Borough, and these received attention as required.

The *disposal of house and trade refuse* is effected at an extensive site between the Gas Works and Sewage Farm. As a tip, the site is suitable and well managed, but that does not mean the method is all that can be desired. Not only is the expense of cartage a serious item, but after all a tip is simply a collection of putrescible matter, which had better be burned in a destructor than allowed to slowly decompose even under a foot or two of soil. Further details of this Department are given in the Report of the Sanitary Inspector (page 115).

#### (6) Sanitary Inspections of District.

A classified statement of the inspections made during the year has been given by the Sanitary Inspector in compliance with the requirements of Article XX (16) of the L.G.B. Order. as follows:—

##### INSPECTIONS.

|                                |     |       |     |       |
|--------------------------------|-----|-------|-----|-------|
| Inspections of dwelling houses | ... | 5,340 | ... | 5,520 |
| „ Schools                      | ... | 26    | ... | 20    |
| „ Factories                    | ... | 15    | ... | 1     |
| „ Workshops                    | ... | 162   | ... | 11    |
| „ Bakehouses                   | ... | 58    | ... | —     |
| „ Cowsheds                     | ... | 440   | ... | 63    |
| „ Dairies and Milkshops        | ... | 12    | ... | 2     |
| „ Ice Cream Premises           | ... | 40    | ... | 7     |
| „ Slaughterhouses              | ... | 808   | ... | —     |
| „ Offensive Trades             | ... | 53    | ... | —     |
| „ Common Lodging Houses        | ... | 128   | ... | —     |
| „ Houses Let in Lodgings       | ... | 28    | ... | 28    |
| „ Fried Fish Shops             | ... | 179   | ... | —     |
| „ Offensive accumulations      | ... | 97    | ... | —     |
| „ Drains                       | ... | 3,832 | ... | 1,329 |
| „ Sewers                       | ... | 41    | ... | —     |
| „ Tents, vans and sheds        | ... | 14    | ... | 10    |

As a result of these inspections the following notices were served:—

No. of Statutory Notices served during 1911 ... 251

No. of Informal or preliminary Notices served ... 457

The defects or nuisances discovered together with the result of the service of these notices and sanitary improvements effected thereby, will be found in detail on pages 72—77 of the Sanitary Inspector's Report.

Of the 708 notices served, 699 were fully complied with, or the necessary works to comply with the same, were in progress at the end of the year.

Nine notices were not complied with, satisfactory reason for postponement being submitted in each instance. These notices were carried forward.

#### **(7) Premises and Occupations Controlled by Bye-laws.**

##### **(a) COMMON LODGING HOUSES.**

For some years these have been limited to four, with accommodation for 350 lodgers. This provision is amply sufficient for the requirements of the district.

The accommodation at two of the registered houses may be described as satisfactory: your bye-laws are observed and no complaint can be made against the management. In 1908 I recommended that the Allison Square Lodging House should be struck off the register as no longer suitable for the reception of lodgers. Certain improvements, e.g., separate W.C. accommodation, were carried out in the hope that by so doing its precarious existence might be prolonged, and this has been the case. One feels, however, that such palliative measures are a mistake and that drastic steps should be taken to provide more comfortable quarters for even "fourpenny" lodgers.

In more ways than one there still remains Upper Green Lodging House. As stated in a former Report, it would be asking the impossible to require this ancient building to be made fit for occupation. It has long since served its day and generation, and it would be a kindly act to remove its crumbling walls where they might rest in peace.

##### **(b) HOUSES-LET-IN-LODGINGS.**

These furnished apartments differ from the above in that they are taken by the week instead of by the night. They number 27, of which 15 are in Westgate. Enough has been said in former reports about these miserable homes—or rather hovels. They are a disgrace to those who farm them and a serious reflection upon those who, by ownership or otherwise,

permit their continued existence. All that can be attempted by regular inspection is done, but much more stringent regulations are necessary to deal with this class of lodgings.

(c) OFFENSIVE TRADES.

Included under this heading are five tanners and leather dressers, three tripe dealers, 1 gut scraper, one knacker and one tallow melter. During the year no complaint has been made against, nor fault found with, the management, and compliance with your bye-laws has been reasonably observed. There are, however, faults of omission as well as of commission, and without being unduly fastidious I hold that in the preparation of any and all food stuffs a higher standard of cleanliness should be aimed at than what one is accustomed to see at those triperies and gut-scraping establishments. The minimum of legal enactments may be complied with, but where human food is concerned, a maximum of cleanliness in every detail is the least that Keighley consumers should insist upon.

(8) Schools

(a) BUILDINGS.

The "School Medical Officer" recognised by the Board of Education is the Medical Officer of Health. He has already laid before you his Annual School Report for the past year, so that only a short synopsis is now given here. The Elementary Schools, 13 in number, with 24 departments, are built on different plans, but mostly on the Central Hall principle. The total accommodation is ample, but the distribution is not uniform. With one exception (Ingrow Council School) the school buildings are dependant on natural ventilation, and therefore on the varying attention given to the matter by the teachers. Cloak-room accommodation is often inadequate. Lavatory basins are sufficient, but towels are less liberally provided. All Schools have an ample supply of town's water. The sanitary conveniences at all schools are now some form of automatic flush closets and on the whole are kept fairly clean.

(b) DETAILS AND RESULTS OF MEDICAL INSPECTION, &c.

All children aged 5, 7 and 12 are examined in School during School hours. Parents are invited to be present, and in the infant departments 82 per cent. accepted the invitation. Over 2,000 children were inspected, with the following percentage of results:—

## Percentage of Children with Abnormal Conditions.

| Nature of Defect<br>or Abnormality.     | Among 570<br>5 year<br>olds. |              | Among 673<br>7 year<br>olds. |              | Among 554<br>1½ year<br>olds. |              | Among 1797<br>"Routine"<br>Cases. |              |
|-----------------------------------------|------------------------------|--------------|------------------------------|--------------|-------------------------------|--------------|-----------------------------------|--------------|
|                                         | No. of<br>cases              | Per<br>Cent. | No. of<br>cases              | Per<br>Cent. | No. of<br>cases               | Per<br>Cent. | No. of<br>cases                   | Per<br>Cent. |
| Impaired Nutrition ...                  | 31                           | 5.4          | 67                           | 10.0         | 27                            | 4.9          | 125                               | 6.9          |
| Teeth decayed—more than 4               | 192                          | 33.7         | 323                          | 48.0         | 92                            | 16.6         | 607                               | 33.8         |
| " " —4 or less ...                      | 378                          | 66.3         | 350                          | 52.0         | 462                           | 83.4         | 1190                              | 66.2         |
| Enlarged Tonsils ...                    | 189                          | 33.1         | 261                          | 38.8         | 196                           | 35.4         | 646                               | 35.9         |
| Adenoids, Granular Pharyn-<br>gitis ... | 94                           | 16.5         | 157                          | 23.3         | 56                            | 10.1         | 307                               | 17.1         |
| Enlarged Glands of Neck ...             | 23                           | 4.0          | 48                           | 7.1          | 13                            | 3.4          | 90                                | 5.0          |
| Uncleanliness of body ...               | 15                           | 2.6          | 29                           | 4.3          | 34                            | 6.1          | 78                                | 4.3          |
| Nits, Vermin ...                        | 84                           | 14.7         | 124                          | 18.4         | 133                           | 24.2         | 341                               | 19.0         |
| External Eye Disease ...                | 20                           | 3.5          | 48                           | 7.1          | 12                            | 2.2          | 80                                | 4.4          |
| Defective Vision ...                    | —                            | —            | 107                          | 15.9         | 127                           | 22.9         | 234                               | 19.0         |
| Diseases of Ear ...                     | 26                           | 4.6          | 47                           | 7.0          | 41                            | 7.4          | 114                               | 6.3          |
| Defective Hearing ...                   | 31                           | 5.4          | 38                           | 5.6          | 36                            | 6.5          | 105                               | 5.8          |
| " Speech ...                            | 19                           | 3.3          | 33                           | 4.9          | 39                            | 7.0          | 91                                | 5.1          |
| Disorders of Heart ...                  | 7                            | 1.2          | 16                           | 2.4          | 16                            | 2.9          | 39                                | 2.2          |
| " Lungs ...                             | 99                           | 17.4         | 159                          | 23.6         | 47                            | 8.5          | 305                               | 17.0         |
| Defects of Nervous System ...           | 7                            | 1.2          | 7                            | 1.0          | 10                            | 1.8          | 24                                | 1.3          |
| Tuberculosis ...                        | —                            | —            | 2                            | .3           | 5                             | .9           | 7                                 | .5           |
| Rickets ...                             | 18                           | 3.1          | 33                           | 4.9          | 4                             | .7           | 55                                | 3.0          |
| Deformities, Spinal Disease,<br>etc.... | 23                           | 4.0          | 45                           | 6.7          | 7                             | 1.3          | 75                                | 4.2          |

It will thus be seen that the most common defects are decayed teeth, enlarged tonsils and adenoids, defective vision, and among girls verminous condition of the head.

### (c) TREATMENT OF DEFECTS (METHODS OF AMELIORATION).

The need for more thoroughly following up those cases where parents are too ignorant or too indifferent to the risks involved by neglect is real and urgent. A School Nurse, assisted by an After-care Committee would find ample scope for their energies and much good to the rising generation would result from their persistent and organised efforts. The teaching of Hygiene and Cookery, Physical Exercises, Swimming Baths, the provision of meals, the School Clinic, &c., are recommended for the removal of defects and the general improvement of physique.

### (d) DETECTION AND PREVENTION OF INFECTIOUS DISEASE.

Whenever infectious disease is known to occur in a household all children from that family are excluded from School until danger of infection is prevented by the removal of the patient to the Fever Hospital or otherwise. The various steps taken to secure prompt action are shortly as follows:—

Every case of Infectious Disease among School Children, or in houses from which children attend School, is notified by

the Health Department to the Education Office, and thence to the Head Teachers. These, in like manner, transmit to the School Medical Officer, i.e., the Medical Officer of Health, either directly or through the Education Office, such facts as come to their knowledge regarding known or suspected infectious disease among their children. Similarly the Attendance Officers and School Nurse collect what information they can re illness and home environment, for the mutual benefit of the two departments. Notices specifying the dates on which disinfection of infected houses was carried out, dates when convalescents may return to School, &c., are regularly sent from the Health to the Education Office. A tabulated list of diseases, with the recognised periods for exclusion and quarantine of scholars, has been sent to Head Teachers for their guidance in dealing with infectious cases.

In connection with this subject it may be here mentioned that other administrative measures for checking the spread of disease, such as the occasional disinfection of infected classrooms or the systematic disinfection of whole Schools are carried out whenever thought desirable and after consultation between the two Departments.

#### (9) Food.

##### (a) MILK SUPPLY.

##### (i.) QUALITY.

The bulk of the milk consumed in the Borough comes from farms situated within our area, where there are some 63 farms, 105 cowsheds, and rather over 600 cows. Regular inspection of the cows and cowsheds has been maintained during the year by your Veterinary and Sanitary Inspectors, and details of their work appear later in the Report.

On an average the milk purveyed within the Borough is of good quality and free from the germs of disease. Occasionally, however, samples were found which led to a more strict supervision of the supplies than has formerly prevailed, and which will result in even more strict measures being taken in future to protect the public, especially from milk containing active tubercle bacilli. The need for increased watchfulness will be apparent from one example of a dairyman's grossly inhuman indifference to the risks incurred by his customers. The facts, stated as shortly as possible, are as follows:—A cow from a certain farm within the Borough was sent to be slaughtered and was found to be tuberculous. Next week a second cow was killed outside the Borough and found tuberculous. In case other cows in the same shed might have been infected, a mixed sample of milk was bacteriologically examined and found to contain tubercle bacilli. Veterinary inspection of the

seven cows in the shed was made. Two were suspected, but on examination no bacilli were found in their milk. The milk of the remaining five, however, contained active germs of disease. As the quickest way of detecting the diseased cow or cows, the farmer was asked to submit the five cows to the Tuberculin test. An alternative was to have the sale of the milk stopped. He chose the tuberculin test, and all five gave a distinct positive reaction. On being told that his milk must not be sold for human food, he declined "to be bluffed: The Farmers' Association had the facts under consideration, and he would abide by his solicitor's decision." Subsequently, however, he consented to dispose of the cows and solemnly promised that in the meantime no milk from these cows would be sold as human food. Some weeks later another bacteriological examination of the milk from this farm was made, and again tubercle bacilli were found. When questioned the farmer confessed that the milk from two tuberculous cows had regularly been added to that from the rest of the herd. To sell tuberculous milk, in ignorance, is surely sufficient grounds for strict supervision, but when with full knowledge that milk contains dangerous germs capable of infecting the trusting consumer, a farmer deliberately continues to sell the same, not only does the public safety demand more stringent oversight, but the law requires urgent amendment to simplify procedure for the proper punishment of the offender. For this purpose the Health Committee are inserting a clause in the Parliamentary Bill, securing a considerable degree of safety to consumers. The necessity for this is evident, seeing that in the 3rd Interim Report of the Tuberculosis Commission, it was distinctly proved that an animal with no detectable disease of the udder could discharge tubercle bacilli in its milk. To me it seems incomprehensible that the public is not more alive to the dangers hidden in their daily milk supply, for after all it is the consumers who pay.

In this instance, however, they get more than they bargain for, and unfortunately it generally is the innocent infant who has to pay with its life for the ignorance or indifference of the parent and, it may be, the heartlessness and greed of the dairyman.

## (ii.) CLEANLINESS.

In former Reports I have urged the advisability of milkmen washing their hands, wearing overalls and grooming their cows, to lessen the possibilities of dust and filth contaminating the milk-can during the process of milking. This suggestion is mostly looked upon as an ideal suitable it may be for Arcadia, but impracticable in a district where increased care and slight increased cost are met with a boycott. Probably if the public could be shown that up-to-date methods were

taken to ensure absolute cleanliness at every stage of production, the boycott would soon be removed from those dairymen whose cans, cows and character were certified to be as genuine as the milk they sold. Suggestions as to the best methods of dealing with milk have been printed and spread broadcast among dairy farmers, so that ignorance of modern hygienic requirements can no longer be excused, yet a milkman will innocently declare his milk contains no filth, and proves his assertion by the fact that his muslin strainer never requires to be washed!

### (iii.) BACTERIOLOGICAL AND CHEMICAL ANALYSIS.

Of 18 milk samples sent for bacteriological examination, three contained tubercle bacilli, while of 33 samples submitted for chemical examination all were genuine.

### (iv.) COWSHEDS.

Regular inspection is maintained and a gradual "levelling up" is being brought about. Some farmers are slowly, very slowly, beginning to realise that roomy, airy sheds and modern methods of milk production are likely to prove more successful financially than the antiquated system under which their grandfathers farmed. There are, however, many who were born with the idea that cows will only yield a large supply of milk when housed in dark, stuffy, heated byres, and cannot see that conditions which favour malnutrition and tuberculosis in human beings are bound to have a similar effect upon animals. It would appear as if quantity and not quality of milk was the sole object to be aimed at, and as if the health of the herd and consequently the health of the milk consumer were matters of relatively less importance. The cleanliness of cowsheds, of utensils, and of places for storing milk, whether at the dairy farm, the milk shop, or the private larder, and the care which ought to be exercised by all to protect this very necessary article of food from contamination, have frequently been emphasised in former reports, but so long as farmers and consumers are indifferent to the presence of manure heaps and tub closets in close proximity to unprotected milk supplies, so long will disease germs and the ubiquitous house-fly continue to spread fever, diarrhoea, and other diseases among the community.

### (b) MEAT.

#### (i) SLAUGHTERHOUSES.

There are 13 slaughterhouses situated in different parts of the town. All are regularly inspected, although possibly the larger and more central engage the largest amount of attention. Their sanitary or insanitary condition has been annually referred to for the last 20 years. Very few have originally

been built for slaughterhouses, and needless to say fewer still conform to modern requirements. As a rule they are overcrowded, badly lighted, and insufficiently provided with means for proper cleansing. Were it not that butchers are trying to make the best use of the means at their disposal, there is no doubt but that the Trade, as well as your Officials, would seriously complain of the difficulties under which they have to work. When, too, the public health is concerned there are grave reasons for reminding you that so long ago as 1894 I recommended the provision of a Public Abattoir and better means for meat inspection, chiefly because of the impossibility of maintaining that thorough cleanliness which is necessary in the preparation of human food. A ray of hope came in 1899, when a suitable site was purchased for an Abattoir. As years passed and the area of the site was gradually curtailed by buildings, the prospects and the need grew inversely. The former seemed indefinitely postponed, but the latter, owing to the gradually increasing demands of the town, has become more and more urgent.

#### (ii.) MEAT INSPECTION.

The careful inspection of, so far as known, all meat sold within the Borough means, for your Inspectors, an enormous amount of running about from slaughterhouse to slaughterhouse, but as compensation it ensures for the community a supply of meat free from any disease communicable from animal to man. In the majority of cases of known or suspected disease, butchers readily notify the Health Department of the fact, and by doing so, protect themselves from legal proceedings for having diseased or unwholesome food in their possession. Consequently no action under Section 117 of the Public Health Act, 1875, has been necessary.

During the year, however, there were surrendered the carcasses of seven cows, 17 pigs and one sheep, which, together with various separate organs and parts, weighed approximately six tons, seven cwts. For fuller details see pages 82 to 87 Sanitary Report.

Before leaving the subject of tuberculous milk and meat, it seems to me advisable to remind you and the inhabitants generally of some weighty conclusions arrived at by the Royal Commission on Tuberculosis after years of careful study and experiment and recommendations made after equally careful consideration of the interests and dangers incurred in connection with tuberculous foods.

With regard to the communicability of tuberculosis from animal to man, the Royal Commission concludes:—"Bovine and Human bacilli are varieties of the same organism, but not specifically different. Tuberculosis in man and in cattle must

unquestionably be pronounced one and the same disease. Whether one prefers to regard bovine tuberculosis and the cases of tuberculosis in man, which are caused by the human type of bacilli, as varieties of the same disease or as independent diseases, there can be no question that human tuberculosis is in part identical with bovine tuberculosis. Our researches have proved that in a considerable portion of cases of the human disease, the lesions contain, and are caused by bacilli which are in every respect indistinguishable from the bacilli which are the cause of tuberculosis in cattle. In such cases, therefore, the disease is the same as bovine tuberculosis."

Regarding more stringent inspection the Commission recommends that "In the interests of infants and children, and for the reasonable safeguarding of the public health generally, we would urge that existing regulations and supervision of milk production and meat preparation be not relaxed, that, on the contrary, Government should cause to be enforced throughout the kingdom food regulations planned to afford better security against the infection of human beings through the medium of articles of diet derived from tuberculous animals."

#### (c) BAKEHOUSES.

Owing to the Yorkshire custom of using home made bread, the number of bakehouses and confectionery businesses is relatively few. On the register of Factories and Workshops there are 45 bakehouses, 14 being more or less underground, and 28 above ground. All have been inspected and found in a satisfactory condition. In addition to the above there are 25 domestic bakehouses, in which members of the same family are employed and only for part of the day. These too, are managed in a fairly satisfactory manner, but in many cases it cannot be said that the part of the house in which the baking process is carried on is used solely for that purpose. These domestic bakehouses are not strictly workshops, and it is difficult to make them conform to the same regulations as if the Factory and Workshops Act properly applied.

#### (d) OTHER FOODS.

Other food stuffs which, on inspection, principally after notification by the owner, were found to be unsound and unfit for human consumption, include 721 lbs. of fish and 110 rabbits.

## (e) SALE OF FOOD AND DRUGS ACT.

Return of Samples purchased in Keighley during 1911 by the  
County Council Inspectors.

| Article.               | No. of<br>Samples<br>Purchased. | Result of Analysis. |           |              |
|------------------------|---------------------------------|---------------------|-----------|--------------|
|                        |                                 | Genuine.            | Inferior. | Adulterated. |
| New Milk... ..         | 31                              | 31                  | —         | —            |
| Butter ... ..          | 14                              | 13                  | —         | 1            |
| Rice ... ..            | 3                               | 3                   | —         | —            |
| Jam ... ..             | 2                               | 2                   | —         | —            |
| Marmalade ... ..       | 2                               | 2                   | —         | —            |
| Golden Syrup ... ..    | 3                               | 3                   | —         | —            |
| Cheese ... ..          | 2                               | 1                   | 1         | —            |
| Lard ... ..            | 2                               | 2                   | —         | —            |
| Cream ... ..           | 2                               | 2                   | —         | —            |
| Comp. Liquorice Powder | 1                               | 1                   | —         | —            |
| Margarine ... ..       | 1                               | 1                   | —         | —            |
| Savoury Ducks ... ..   | 1                               | —                   | —         | 1            |
| Sausage ... ..         | 1                               | —                   | —         | —            |
| Olive Oil ... ..       | 1                               | 1                   | —         | —            |
| Salvolatile ... ..     | 1                               | —                   | —         | 1            |
| Crushed Linseed ... .. | 1                               | 1                   | —         | —            |
| Oatmeal ... ..         | 1                               | 1                   | —         | —            |
| Pepper ... ..          | 1                               | 1                   | —         | —            |
|                        | 70                              | 65                  | 1         | 4            |

A further statement of the work done under these Acts will be found on page 92 of the Sanitary Report.

## (10) Housing.

The recent Housing and Town Planning Act has not only added very considerably to the work of the Health Department, but has simplified the procedure necessary to secure amelioration of the insanitary conditions under which many of the poorer class are compelled to live and die.

For long it has been the statutory duty of every Local Authority to see that regular inspection of its district was made, but when it came to taking action against the property owner before the magistrates, it was not always possible to get the Magisterial Bench to see things with the Sanitary Eye, and progress was extremely slow even when most necessary. Under the Act of 1909, powers are given to the Local Government Board to enforce the execution of the Housing Acts, especially in regard to enforcing regular inspection, and Local authorities themselves (and not the Magistrates) are empowered to make Orders for the closing and demolition of dwellings unfit for human habitation. Further it is enacted that houses

rented at £16 or less shall be at the time of letting, and also during the holding, kept by the landlord in all respects reasonably fit for human habitation, and the Act provides machinery by which the Council may remedy any default on the part of the landlord in this respect.

Towards the latter part of 1910 the Health Committee decided upon the line of action to be taken by them in carrying out the provisions of the Act. The Sanitary Inspector was designated to make the inspections. An additional clerk was appointed and the duties of the Office and inspectorial staff re-arranged so as to deal with the extra work involved in a thorough house inspection and keeping the records prescribed by the Local Government Board.

For upwards of 20 years the *insanitary condition of Westgate* has, like a hardy annual, been referred to in my annual reports, and naturally attention was first drawn to that district when the work of house inspection began. It is scarcely necessary to remind you that some twelve years ago I made an Official Representation to the then Council and described the condition at that time something as follows:—"The houses are mostly back-to-back or cellars—old, dilapidated, and incapable of proper ventilation. The walls and foundations in many cases are damp, and the soil sodden with liquid filth. Many houses are dependant on a stand pipe in the street for water supply. Drainage is defective or altogether absent. Closet accommodation is notoriously deficient and dirty. Five or six houses to a tub closet is the common experience, and when the privy is built over the North Beck a tub is considered unnecessary. The Courts and Alleys are narrow, unpaved, unsewered, and very badly arranged." The Council discussed the adequacy or rather the inadequacy of their resources, and while fully admitting the unsatisfactory condition of much of the property within the area, finally requested the Health and Highways Committees to consider further and report to a future meeting of the Council.

Every year since then the Health Committee has inspected the district, and it is only putting it mildly to say that every Committee has unanimously agreed that the area is a disgrace to the town, a danger to its inhabitants, and that something radical ought to be done. A good deal of course has been done since then: many of the worst houses have been closed by Magistrates' Orders as unfit for human habitation and better closet accommodation has been provided for many of the houses within the area, but on the other hand, recent inspection has shown that many of the houses have gone from bad to worse; the recently introduced up-to-date closets have even been rendered useless and a nuisance from dirt, neglect, and wanton destruction, and free circulation of air and sun-

light are still prevented or excluded by the closed and walled up memorials of neglect and insanitation, as well as by the narrow badly arranged Courts and Alleys. Thus the general character of the district remains unaltered down to the period now under review.

A statement of the progress made during the year may now be mentioned. Early in April I laid before the Health Committee a report on Corporation properties in Westgate recommending their demolition for the following reasons:—

Group A. Baptist Square, Nos. 36, 38, 40, 42, 44; Ling Alley, Nos. 50, 52, 54; Westgate, Nos. 19, 21, 25, 29, 31, 33, 35, 35a, 37, 39, 70, 72. In most, the walls were in bad repair: the roofs defective in all. Some had a door, in none was there a pane of glass in the window. In most the woodwork and internal fittings were gone, or if left, were in bad repair. The internal walls were generally damp, the floors defective, and the eave-spouts and fall-pipes broken or absent. There was no water supply, no drainage, and no closet accommodation. The houses in Group B, namely, 45, 47, Westgate, and 67, 71, 73, 75, Smith's Yard, were in a very similar condition, except that the walls and roofs were not quite so defective, and closet accommodation of a kind did exist. In recommending demolition it was pointed out that these dwellings had been closed as unfit for human habitation for years, and that they seemed incapable of being rendered so fit. Repeatedly the boards used to close up the window-openings had been torn down for firewood and the interiors used as privy middens.

That the public health was prejudicially affected by these insanitary conditions was supported by a comparison of the mortality tables for the different wards in the Borough for the past 20 years.

After prolonged consideration by the Committee and the Council, the latter decided to postpone demolition for 3 months, to afford time for the Health and Highways Committees to jointly formulate a Scheme for the improvement of the Westgate Area. On May 17th the Joint Committee met and decided that in the event of an Improvement Scheme being carried out: 1st, the North Beck from Corn Mill Bridge to the top boundary of the Area, be paved and covered by a culvert; 2nd, that the top part of High Street be widened and a road 18 yards wide be constructed from High Street obliquely to Oakworth Road. A further suggestion was made that the Medical Officer of Health and Sanitary Inspector present at the next meeting a list of all houses within the area which appeared to them to call for Closing and Demolition Orders.

At a subsequent meeting on May 31st, I made a general report on the area, outlined on a map produced, and a further report on those houses and tenements which, in the opinion of

the Inspector and myself, ought to be individually examined by the Committee, with a view to obtaining Closing Orders until they were, if possible, made fit for human habitation. On June 19th the Committee accordingly inspected the dwellings mentioned and decided to recommend the Council to close, not only most of the dwellings referred to, but, lest the Housing and Town Planning Act was not retrospective, they recommended the council to confirm the closing of all the houses which prior to the 1909 Act had been already closed by Magistrates' Order or voluntarily closed by the owners, rather than comply with the Statutory Notices served upon them. The object of this was to prevent any dispute as to the legality of making Demolition Orders in respect of those ancient, but sadly dilapidated land marks. These recommendations were adopted by the Council on June 27th, and a month later formal consideration was given to the Official Representation which, in general terms, described the area as an unhealthy one. In the area outlined on the plan there are still in occupation approximately 30 houses so insanitary from dirt and dilapidation as to be injurious to health and practically unfit for habitation. The sanitary condition of the remaining 100 houses is satisfactory in only about one-fourth of the number. The other three-fourths fail to comply with the conditions implied in Sections 14-15 of the 1909 Act, requiring that houses of rental not exceeding £16 per annum at the time of letting and during the holding should be in all respects reasonably fit for habitation. A carefully worked out comparison between the mortality returns for the North-West and the West Wards for the past 20 years, shows how prejudicially the whole West Ward is affected by the unhealthy conditions existing in the Westgate section of the Ward. The difference between the two Wards in popular language is that in equal populations for every 13 persons who die in the North-West Ward from all causes, 20 die in the West.

Seeing that the sickness and mortality rates for this area are higher than in any other part of the Borough, that the insanitary condition of so many of the houses, the narrowness of the courts and bad arrangement of groups of houses, together with the want of light and ventilation and proper conveniences, are dangerous and injurious to health, I recommend, as the most satisfactory method of dealing with the evils connected with such houses and courts and the sanitary defects in such area, an Improvement Scheme.

On July 25th the Council, being the Local Authority within the meaning of the Housing of the Working Classes Acts, 1890-1909, and having taken such representation into their consideration and being satisfied of the truth thereof, and of the sufficiency of their resources, resolved (1) That such area is an unhealthy area and that an Improvement Scheme ought to be made in respect thereof; and (2) That the Health and High-

ways Committees be instructed to draw up and submit to the Council a scheme for the improvement of such area. Plans and estimates are now being prepared, and but for the extra work entailed by the Parliamentary Bill, might have been ere now laid before you.

The new Housing and Town Planning Act leaves to the discretion of the Local Authority the procedure to be adopted before making a closing order. It is, however, considered advisable to afford all interested persons an opportunity of stating their reasonable objections to the proposed closing order, and this course was adopted by the Health Committee in those cases where it might be urged that there was a possibility of making the dwellings fit for habitation. Where, in the opinion of the Committee, it was impracticable to make the houses habitable, the closing orders were signed and the tenants in due course ceased to occupy. In two instances (8 tenements) appeals against the closing orders were lodged with the Local Government Board. With regard to one of these appeals there is no room for action, seeing that the tenements in question are cellars, as defined by the Public Health Act, 1875, and their occupation consequently illegal. That, however, is a matter to be settled in another year's report.

The *inspections* made under Section 17 of the Housing and Town Planning, &c., Act, 1909, and the results of such inspections may be summarised as follows:—

|                                                          |     |
|----------------------------------------------------------|-----|
| Number of houses inspected ... ..                        | 260 |
| „ found totally unfit for human habitation ... ..        | 81  |
| „ not in all respects fit for habitation ... ..          | 183 |
| „ of representations made re Closing Orders ... ..       | 84  |
| „ „ Closing Orders made ... ..                           | 77  |
| „ „ Closing Orders appealed against (2 appeals) ... ..   | 8   |
| „ „ unoccupied and dilapidated houses closed ... ..      | 49  |
| „ „ occupied houses closed (compulsorily) ... ..         | 28  |
| „ „ houses remedied without Closing Orders ... ..        | 19  |
| „ „ „ being remedied—work in progress ... ..             | 40  |
| „ „ „ made fit after Closing Orders had been made ... .. | 0   |

From the above summary it will be inferred that there are some 89 or more houses or tenements to be accounted for and which are not in all respects fit for habitation. As they are, with three exceptions, in the Westgate Area, it will at once be understood that steps will be taken to deal with them whenever the Improvement Scheme is matured. For further details see pages 95—100 (Sanitary Report).

The defects most frequently found in the houses inspected under Section 17 include dampness in the walls, roofs defective, defective floors and internal fittings, absence of means for storing food, insufficient and dilapidated sanitary accommodation, defective drainage, and unpaved back yards. Individually

several houses had insufficient provision for light and ventilation and collectively many from the arrangement of the courts and yards have little or no free circulation of air, either through or about them.

The *adequacy* of houses for skilled artisans depends largely on the state of trade and is not a question of urgency, but there is certainly a demand for labourers' houses at a low rental—3/6 to 4/- per week. At the same time, there is no known, and certainly no general, overcrowding, as may be inferred from the fact that the Census returns show an average of 4.3 persons per house, compared with 4.55 in 1901.

The Borough is unusually well supplied with *open spaces*, there being three public parks and two public playgrounds. In some of the older parts of the town, e.g., Sun Street and Greengate, where the worst type of back to back houses exist, open spaces for the free circulation of air are wanted, but the districts being small the public health does not seem to be injuriously affected.

*Cleanliness* about the house and weekly swilling of the pavements and backyards are a marked feature in all the newer parts of the town, and although paving of yards and closes is now insisted upon, the prevalence of summer diarrhoea and the plague of house flies in the older parts of the town clearly indicate the existence of filth and decaying matter in the vicinity.

*Supervision* over the erection of new houses is maintained and a certificate of fitness for occupation granted by the Borough Engineer in every case before tenancy is allowed. There has been a slight improvement in the building trade during the past year, but, as seen from the following table, the number of new houses erected is not within 50 per cent of ten years ago:—

|      | Central | East. | North East. | North West. | South. | West. | Total. |
|------|---------|-------|-------------|-------------|--------|-------|--------|
| 1899 | 13      | 45    | 97          | 134         | 50     | 45    | 384    |
| 1900 | 7       | 25    | 55          | 67          | 35     | 33    | 222    |
| 1901 | 2       | 23    | 96          | 47          | 28     | 30    | 226    |
| 1902 | 0       | 16    | 49          | 31          | 27     | 16    | 139    |
| 1903 | 6       | 27    | 34          | 38          | 3      | 16    | 124    |
| 1904 | 0       | 7     | 61          | 20          | 19     | 18    | 125    |
| 1905 | 0       | 3     | 41          | 13          | 22     | 18    | 97     |
| 1906 | 0       | 0     | 19          | 21          | 23     | 11    | 74     |
| 1907 | 2       | 3     | 29          | 37          | 11     | 4     | 86     |
| 1908 | 4       | 6     | 23          | 28          | 9      | 5     | 75     |
| 1909 | 15      | 5     | 55          | 14          | 29     | 0     | 118    |
| 1910 | 15      | 2     | 16          | 16          | 24     | 0     | 73     |
| 1911 | 13      | 11    | 39          | 13          | 14     | 11    | 101    |

**(11) Workshops, Bakehouses, &c.**

The revised Register contains the names of 289 Workshops. All have been inspected from time to time and the details of air space, ventilation, sanitary conveniences, &c., recorded. Below is given a summary of the various classes of Workshops on the register:—

|                                                |    |
|------------------------------------------------|----|
| Tailors ... ..                                 | 33 |
| Dressmakers, Milliners, Drapers ... ..         | 61 |
| Hosiery and Shirtmakers ... ..                 | 7  |
| Shoemakers and Cloggers ... ..                 | 48 |
| Plumbers and Tinsmiths ... ..                  | 11 |
| Watchmakers and Jewellers ... ..               | 9  |
| Cycle and Motor Repairers ... ..               | 7  |
| Cabinetmakers, &c. ... ..                      | 5  |
| Blacksmiths, &c. ... ..                        | 5  |
| Pork Butchers ... ..                           | 11 |
| Tripe Dressers ... ..                          | 3  |
| Bakers and Confectioners (under ground) ... .. | 16 |
| „ „ (above ground) ... ..                      | 54 |
| Various other Trades ... ..                    | 19 |

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 289
**DOMESTIC WORKSHOPS.**

A separate entry in the register is kept for those Domestic Workshops in which only members of the family are engaged, and these for only part of the day, and where, during the remainder of the day, the room is used by the family as a living room. Inspection of these semi-workshops can only be made on general sanitary lines, without special reference to the requirements of the Factory and Workshops Act.

The Domestic Workshops on the Register include:—

|                              |    |
|------------------------------|----|
| Bakers (above ground) ... .. | 23 |
| „ (under ground) ... ..      | 2  |
| Tailors ... ..               | 5  |
| Shoemakers ... ..            | 4  |
| Dressmakers ... ..           | 11 |
| Pork Butchers ... ..         | 5  |
| Miscellaneous ... ..         | 2  |

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**SANITATION IN FACTORIES AND WORKSHOPS.**

Section 22 of the Public Health Acts Amendment Act, 1890, is in force in the Borough, and consequently the Corporation is responsible for the proper provision of water-closet accommodation in Factories. The standard of “sufficiency and suitability” adopted by the Health Committee is “not less

than one W.C. for every 25 employees and separate provision for the sexes."

As a result of the inspections made the following works were carried out:—

|                                          |     |     |
|------------------------------------------|-----|-----|
| Factories—Sanitary Conveniences improved | ... | 3   |
| " " " cleansed                           | ... | 3   |
| Workshops—Cleansed or Limewashed         | ... | 210 |
| " " Light and Ventilation improved       | ... | 3   |
| Bakehouses Cleaned or Limewashed         | ... | 58  |

#### BAKEHOUSES.

Of 70 Bakehouses on the Register 16 are underground, two of the latter being Domestic Workshops. All have been carefully inspected and certificates of fitness granted. The 25 Domestic Bakehouses are under the same supervision and are made to comply, not merely with the requirements of the Factory and Workshops Act, but with those of the general law regulating the fitness of the dwelling houses for human habitation.

#### HOME WORK.

One list of Outworkers has been received and I have no reason to think there has been any contravention of the Act regarding the supply of such lists.

### C.—Sanitary Administration of District.

#### (1) Work of Inspectors of Nuisances and other Sanitary Officers.

Only by strenuous and conscientious attention to their duties could the large amount of inspectorial work detailed on page 11, have been accomplished by the staff of the Health Department. Elsewhere in the Report reference is made to the unusual incidence of infectious disease during the year, and to mention nothing else the disinfection work entailed by the epidemic seriously interfered with statutory house inspection and the routine work of the inspectors.

Such a duty for instance as the inspection of some 120 carcasses of meat killed weekly in a dozen separate slaughter-houses situated in different parts of the town, required no small degree of management, seeing that killing takes place simultaneously in the various private and public abattoirs, and butchers naturally wish the inspection completed before they remove the meat to their respective shops and stalls. The two assistant inspectors are qualified meat inspectors as well as the Chief, but where disease is found in any carcase it has all to be examined by the Chief Inspector before condemnation is decided upon. An example of this kind is expressly mentioned to show that while the staff makes every possible effort to give complaints immediate attention, the demands upon their

time are so many and the exigencies of the public so exacting that they cannot, however willing, be in more than one place at a time.

The inspection of cowsheds, bakehouses, workshops, and lodging houses, the supervision of offensive trades, drainage works, refuse removal, smoke abatement, and the like, have not only been regularly and systematically maintained, but carried out with due regard to the interests of all parties concerned, and the welfare of the public generally.

## (2) Hospital Accommodation (Keighley and Bingley Joint Hospital).

Not since the Fever Hospital was erected has there been such a heavy and prolonged demand for beds as during the whole of 1911, due to the severe epidemic of Scarlet Fever in the Borough. Fortunately no cases had to be refused admission, but on more than one occasion almost every available bed was occupied, and only by making use of the Typhoid Fever Pavilion, as well as of the day rooms for Scarlet Fever was it possible to avoid overcrowding. Another difficulty, namely, the want of bed-room accommodation for Nurses, was fortunately got over by a number of them preferring the open-air life and sleeping out until twelve additional bedrooms were added to the administrative block. The new motor ambulance has proved an immense boon. In fact the work of the past year could never have been done by the horse ambulance.

In the following table the admissions since the Hospital was opened are given for comparison—note, however, that for the past two years admissions to the Consumptive Sanatorium are included:—

| Year. | Keighley. | Bingley. | Oakworth. | Haworth. | Oxenhope. | Keighley Rural. | Outside Authorities. | Total. |
|-------|-----------|----------|-----------|----------|-----------|-----------------|----------------------|--------|
| 1898  | 164       | 35       | 11        | 19       | ...       | 4               | 7                    | 240    |
| 1899  | 267       | 81       | 10        | 11       | 5         | 13              | 27                   | 414    |
| 1900  | 210       | 102      | 20        | 13       | 1         | 68              | 3                    | 417    |
| 1901  | 237       | 36       | 5         | 18       | 1         | 35              | 27                   | 359    |
| 1902  | 91        | 30       | 5         | 4        | 5         | 8               | 28                   | 171    |
| 1903  | 73        | 34       | 3         | 44       | 17        | 27              | 15                   | 213    |
| 1904  | 88        | 18       | 41        | 21       | ...       | 29              | 1                    | 198    |
| 1905  | 201       | 40       | 26        | 6        | 14        | 7               | ...                  | 294    |
| 1906  | 214       | 60       | 33        | 2        | 8         | 15              | ...                  | 332    |
| 1907  | 146       | 66       | 21        | 5        | ...       | 27              | ...                  | 265    |
| 1908  | 148       | 85       | 6         | 46       | 1         | 17              | 34                   | 337    |
| 1909  | 200       | 70       | 34        | 40       | 10        | 16              | 12                   | 382    |
| 1910  | 365       | 87       | 6         | 24       | 2         | 31              | ...                  | 515    |
| 1911  | 581       | 89       | ...       | 35       | 1         | 40              | 6                    | 752    |

Considerable difficulty was again experienced during the year with mixed infections. The possible combination of Scarlet Fever and Diphtheria is anticipated by swabbing every throat immediately on admission, but it is different when cases of Scarlet Fever are sent in from houses already infected with Measles or Whooping Cough or Chicken Pox. In those instances no precautions can be taken until it is too late to prevent other children in the ward becoming infected. No amount of care can guard against such a contingency, and blame can only attach to those who send in these cases without previously notifying the danger of concurrent infection.

The admissions from the several constituent Authorities are here given in detail as entered in the Hospital Admission Register. The figures for the Borough do not coincide with those given later from Notification returns, but the discrepancy is only apparent. Several cases were admitted on Saturday, 31st December, 1911, after office hours, but the notifications were not received until a new year had begun, and therefore do not appear in the same record.

| District               | Scarlet<br>Fever | Diphtheria | Typhoid<br>Fever | Phthisis | Total |
|------------------------|------------------|------------|------------------|----------|-------|
| Keighley ... ..        | 470              | 78         | 4                | 29       | 581   |
| Bingley ... ..         | 40               | 27         | 1                | 21       | 89    |
| Oakworth ... ..        | —                | —          | —                | —        | —     |
| Haworth ... ..         | 15               | 17         | —                | 3        | 35    |
| Oxenhope ... ..        | —                | —          | —                | 1        | 1     |
| Keighley Rural ...     | 36               | —          | —                | 4        | 40    |
| Outside Authorities .. | 5                | —          | 1                | —        | 6     |
|                        | 566              | 122        | 6                | 58       | 752   |

Of the 752 cases admitted during the year, 27 proved fatal, namely, 20 Scarlet Fever, 6 Diphtheria, and 1 Typhoid Fever. This somewhat heavy mortality includes several cases which died within an hour or two of admission.

Notwithstanding the extra work to the Nursing Staff arising from the prolonged epidemic, only one suffered from Scarlet Fever, and two from Diphtheria. There was, however, a considerable amount of Hospital sore throat and other forms of sickness, principally among the younger probationers.

#### CONSUMPTIVE SANATORIUM.

It does not yet appear as if the Sanatorium was sufficiently appreciated by early cases of Tuberculosis. The benefits derived by those who have spent a few months there are, however, fully endorsed by the frequent applications made for re-admission. During bad weather the open-air life does not appeal to consumptives, who have learned to dread cold and draughts, but

it is astonishing how quickly patients in the Sanatorium become accustomed to sitting and sleeping out of doors in spite of wind and weather. This is especially noticeable in the case of women, who sit under the verandah sewing and doing fancy work, braving the elements cheerfully, because they know their reward will come.

For this reason, or more probably because they are admitted earlier, there is no question but that the female patients as a whole received more benefit than the males, who, as the chief wage earners, did not seek admission until compelled by gradual loss of strength.

It is disappointing to still find that cases are not sent in as early as they might be. In some, the disease had lasted only three months, whereas others had been suffering six or seven years. In five instances the patients had to be gently told that they were not likely to benefit, seeing they were too ill to take exercise out of doors, or even to sit up. The Sanatorium, it should be remembered, is really a school for early consumptives, and not a hospital for the treatment or isolation of advanced cases. As will be seen from the table of admissions, 58 cases were received for varying periods, the average being for three months. All the constituent districts were represented with one exception, yet, strange to say, that district, according to the latest official report, is far from being in the happy position of having no need for a Sanatorium.

Considering the short period of residence, the following results appear very satisfactory:—24 were greatly improved, 17 improved, 8 no improvement, 4 worse, 5 unsuitable and sent home after a few days. The general improvement showed itself in gain of weight, cough and expectoration less, appetite and sleep improved, better able to take exercise, and a feeling of returning health. The local or lung improvement was especially noticeable in the early cases.

From the point of view of the consumptive, the period of residence is far too short to justify the expectations of a cure, but from the public health view, patients, their friends, and visitors, have learned from experience and personal observation a good deal about the nature of the disease and the steps to be taken to prevent its spread.

### (3) Administration of Local and General Adoptive Acts.

(a) The *local Acts* containing provisions for the better sanitary administration of the Borough, include:—

Keighley Improvement Act, 1824 (powers to abate and prevent nuisances).

Keighley Waterworks and Improvement Act, 1867 (powers to prevent rivers pollution, &c.).

Keighley Waterworks Extension and Improvement Act, 1869 (powers to establish slaughterhouses, &c.).

Keighley Corporation Act, 1891 (powers to require lists of customers from dairies, laundries, &c., for removal of rubbish, dust from factories, provision of urinals, &c.).

Keighley Corporation Act, 1898 (powers to require water closets, conversion of pail closets, and prevention of nuisances, &c.).

Keighley Corporation Act, 1908 (powers re drains, manufacture of ice cream, &c.).

(b) The *Acts adopted* are :—

Infectious Diseases Notification Act, 1889.

Infectious Diseases Prevention Act, 1890.

Public Health Acts Amendment Act, 1890, Parts 2, 3, 4, 5.

Notification of Births Act, 1907.

Public Health Acts Amendment Act, 1907.

Part II., Sections 16, 19, 20, 22, 25, 27, 32, 33.

Part III., „ 34, 35, 36, 37, 38, 43, 45, 47, 50, 51.

Part IV., „ 52 to 66, 68.

Part V.

Part VII., Sections 81, 86.

Part VIII.

Part IX.

Part X., Section 95.

(With modifications of Sections 19, 25, 27, 35, 37, 38, 59 and 75).

Of the Local Acts perhaps most frequent use is made of Sections 86 and 60, Keighley Corporation Act, 1891, and Section 51, Keighley Corporation Act, 1898, which give powers to provide sinks, drains, water closets, &c.

#### (4) Chemical and Bacteriological Work.

The following specimens have been examined in the West Riding County Laboratory :—

|                               | Borough | Fever Hospit'l | Union Infirmary | Total |
|-------------------------------|---------|----------------|-----------------|-------|
| Serum for Widal Reaction ...  | 3       | 6              | —               | 9     |
| Sputum for Tubercle ...       | 38      | —              | 26              | 64    |
| Swabs for Diphtheria ...      | 43      | 1045           | —               | 1088  |
| Urine for { Enteric Fever ... | 1       | 3              | 1               | 5     |
| { Tubercle ...                | 2       | —              | —               | 2     |
| Milk for Tubercle ...         | 10      | —              | —               | 10    |
|                               | 97      | 1054           | 27              | 1178  |

The large number of Diphtheria swabs is accounted for by the fact that every case of Scarlet Fever, as well as of Diphtheria, is swabbed, and, when positive, swabs continue to be examined until two successive negative ones are received. What has been proved absolutely necessary in hospital practice might well be followed with those cases treated at home.

There is little convenience for microscopic and bacteriological work in the Town Hall, and when, as not infrequently happens, an urgent examination is required, e.g., blood from a beast supposed to have died from Anthrax, the examination has to be performed under difficulties.

Weekly examination of the water supply, more especially in regard to its acidity and plumbo-solvent action, and the work done in connection with the analysis of food stuffs are referred to elsewhere in the Report.

## **D.—Incidence and Control of Infectious Diseases.**

### **SMALL POX.**

No case of Small Pox occurred in the Borough during the year. Several anxious weeks, however, were passed on account of "Contacts," who had to be supervised during the period of incubation. In March and April soldiers on furlough arrived in the Borough, having been exposed to infection on their troop-ship during their voyage from the East, and for three weeks they were kept under observation, so as to secure their prompt isolation on the earliest appearance of the disease. In May, too, the same precautions had to be observed in the case of a family exposed to infection in a neighbouring district.

In former Reports it has been plainly stated that the amount of susceptible material in the Borough is unusually large and that immediate action will alone save us should Small Pox be brought into our midst. In a community like ours, where 90 per cent. of the children and 98 per cent. of adults have not even the protection afforded by primary vaccination, it is evident that prompt isolation of the first case is of paramount importance. How long the evil day may be postponed no one can say, but it must be understood that no consideration for the inconvenience to Consumptives arising from their quick dismissal from the Sanatorium will be allowed to stand in the way when an outbreak of Small Pox threatens the district.

### **MEASLES.**

This disease is not compulsorily notifiable and consequently there is no means of ascertaining how many cases occurred during the year. There were only 3 deaths registered, so that one may readily assume the absence of anything like a general epidemic. A threatened outbreak appeared imminent in both Ingrow and Keighley Church of England

Infant Schools during the Spring, but prompt notification by the teachers and exclusion of all children from infected families attending the Infant Departments prevented the outbreak becoming widespread.

From my report for 1911 on the Medical Inspection of School Children recently presented to you, you will have seen that nearly 90 per cent. of children have suffered from Measles before entering the Mixed Department and consequently the attendance of only the Infant Classes is affected by a Measles epidemic.

The death rate from Measles was .07, compared with .02, .19, and .76 in the previous three years. For England and Wales the rate was .36, for the 77 great towns .47, and for the 136 smaller towns .41.

#### WHOOPING COUGH.

This zymotic disease, unlike Measles, was fairly prevalent, especially in the Central, East, South and West Wards.

During the Spring the attendance at St. Anne's, Holycroft, Parkwood and Keighley C. of E. Infant Departments was seriously interfered with, and 20 deaths were registered as due either to Whooping Cough or to the Broncho Pneumonia immediately following. It was found that 48 per cent. of School Children suffered from Whooping Cough before 5 years of age, and 55 per cent. before 7 years, and these results are confirmed by the heavy mortality from Whooping Cough among children under 5 during the recent epidemic. Thus 6 deaths were registered as under 1 year, 7 between 1 and 2 years and 6 between 2 and 5 years, and only 1 death over 5 years of age. Although School attendance has doubtless a good deal to do with spreading the infection, it is evident that most of the deaths occur before the victims are of school age. It should also be evident that with both Measles and Whooping Cough the longer the attack is postponed the less likely is it to prove fatal.

Seeing that the disease began in March when Coughs are not infrequent, it is apparent that the early cases in school would spread infection before the true nature of the Cough was appreciated. Subsequently exclusion of all "suspects" was insisted upon until freedom from infection was beyond question.

As regards distribution of fatal cases, it may be noted that 7 deaths occurred in the West Ward, 4 in both Central and East, 2 in the North-East and none in the North West. The death rate was .45, compared with .04, .04 and .70 in the previous three years. For England and Wales the death-rate was .21, for the 77 great towns, .24, and for the 136 smaller towns .18.

## SCARLET FEVER.

|                |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|
| Cases notified | ... | ... | ... | ... | ... | 511 |
| Deaths         | ... | ... | ... | ... | ... | 16  |
| Death rate     | ... | ... | ... | ... | ... | .36 |

So far as the number of cases, the Scarlet Fever epidemic of 1911 will be remembered in the Borough as the worst on record. There have been much more fatal epidemics, but for persistent prevalence month after month, there has been nothing to equal it since the Notification Act came into operation.

As stated in last year's Report, the outbreak assumed epidemic proportions in October of 1910, and the Infant Schools in the South half of the town were closed, and when all the Schools were closed for the Christmas holidays it was hoped there would be a diminution in the number of cases notified daily. Expectations, however, were falsified by a distinct increase in the number of cases occurring daily during the holidays, possibly due to increased attendance during the festive season at social gatherings, picture palaces and similar hot crowded meeting places. Anyhow, School closure did not appear justified, and although direct personal infection was undoubtedly the cause of the continued prevalence, school attendance, in my opinion, was less to blame than the ignorance and indifference shown by parents in dealing with mild and doubtful cases of Fever and Sore Throat among children under School Age. This opinion is supported by the fact that in 20 per cent. (94 households), Scarlet Fever was notified where no children were of an age to attend School and therefore infection must have been contracted elsewhere.

That School life did play its part in spreading infection cannot be questioned, in face of the many cases sent home by the teachers with more or less obvious symptoms of the disease, e.g., peeling of the hands, sore throat, &c. One of several examples when both School and home life joined in a localised outbreak occurred in Lawkholme, and illustrates how easily small beginnings produce large results. A widow visited a house in which was a sickly child said to be suffering from Measles. The widow's own child in a few days developed a rash which of course was also Measles. This child when convalescent played with a little girl attending Eastwood Infant School, and this girl on the evening preceding her removal to the Fever Hospital, was at a children's tea-party, and thus within a month of the first case being wrongly diagnosed as Measles, 22 cases of Scarlet Fever arose partly from meeting at school and partly from meeting at a home tea-party. Here there was good reason to believe that ignorance of the true nature of the rash was genuine, but when as happened on more than one occasion a child was sent home from school

suffering from sore throat or a suspicious rash with a message that Fever was suspected, and yet the parents took no steps to find out whether or not there was Fever, then the ignorance was wilful and showed culpable indifference to the claims of others.

Leaflets pointing out the symptoms of Scarlet Fever and the precautions which should be taken—especially in any doubtful case, were handed to every School child for its parents. The leaflet was also made the text for a simple lesson by the teachers on the need for care in dealing with sore throat during an epidemic of Scarlet Fever and other matters connected with infection and the spread of the disease, but whether the seed thus sown fell by the way side or on stony ground the result was crop after crop of sore throat, rash and desquamation.

The following table shows the age, monthly and ward distribution of the cases notified and the numbers removed to the Hospital.

# Cases of Scarlet Fever notified during the year 1911.

| NOTIFIABLE DISEASE. | CASES NOTIFIED IN WHOLE DISTRICT. |                |        |         |          |          | TOTAL CASES NOTIFIED IN EACH WARD. |       |            |            |      |       | No. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY. |         |      |            |            |      |       |       |
|---------------------|-----------------------------------|----------------|--------|---------|----------|----------|------------------------------------|-------|------------|------------|------|-------|------------------------------------------------------|---------|------|------------|------------|------|-------|-------|
|                     | At all Ages.                      | At Ages—Years. |        |         |          |          | Central                            | East. | North-East | North-West | West | South | Total                                                | Central | East | North-East | North-West | West | South | Total |
|                     |                                   | Under 1        | 1 to 5 | 5 to 15 | 15 to 25 | 25 to 65 |                                    |       |            |            |      |       |                                                      |         |      |            |            |      |       |       |
| January ...         | 66                                | 1              | 16     | 41      | 8        | ...      | 7                                  | 24    | 3          | 9          | 8    | 15    | 66                                                   | 7       | 24   | 3          | 8          | 8    | 15    | 65    |
| February ...        | 78                                | ...            | 20     | 47      | 8        | ...      | 5                                  | 30    | 4          | 11         | 2    | 26    | 78                                                   | 5       | 28   | 4          | 4          | 2    | 24    | 71    |
| March ...           | 55                                | ...            | 21     | 30      | 2        | ...      | 11                                 | 9     | 7          | 6          | 10   | 12    | 55                                                   | 10      | 8    | 6          | 4          | 9    | 9     | 46    |
| April ...           | 25                                | 1              | 8      | 11      | 3        | ...      | 2                                  | 11    | 3          | 2          | 3    | 6     | 25                                                   | 2       | 8    | 3          | ...        | 3    | 4     | 20    |
| May ...             | 27                                | ...            | 7      | 18      | 1        | ...      | 2                                  | 5     | 2          | 5          | 7    | 6     | 27                                                   | 2       | 5    | 2          | 4          | 7    | 6     | 26    |
| June ...            | 29                                | ...            | 11     | 18      | ...      | ...      | 2                                  | 6     | 7          | 6          | 8    | ...   | 29                                                   | 2       | 6    | 7          | 6          | 8    | ...   | 29    |
| July ...            | 40                                | ...            | 12     | 26      | 2        | ...      | 2                                  | 5     | 22         | 6          | 1    | 4     | 40                                                   | 2       | 5    | 22         | 5          | 1    | ...   | 38    |
| August ...          | 8                                 | ...            | 2      | 6       | ...      | ...      | 1                                  | ...   | 1          | 3          | 1    | 2     | 8                                                    | 1       | ...  | 1          | 3          | 1    | 2     | 8     |
| September ...       | 40                                | ...            | 12     | 26      | 1        | ...      | 8                                  | 2     | 16         | 6          | 3    | 5     | 40                                                   | 8       | 1    | 16         | 6          | 3    | 5     | 39    |
| October ...         | 44                                | ...            | 15     | 24      | 5        | ...      | 5                                  | 5     | 13         | 8          | 6    | 9     | 44                                                   | 3       | 5    | 12         | 7          | 6    | 6     | 39    |
| November ...        | 48                                | ...            | 21     | 24      | 3        | ...      | 5                                  | 6     | 11         | 4          | 14   | 8     | 48                                                   | 5       | 6    | 11         | 3          | 14   | 7     | 46    |
| December ...        | 51                                | ...            | 12     | 32      | 5        | ...      | 5                                  | 6     | 12         | 5          | 11   | 12    | 51                                                   | 4       | 6    | 12         | 4          | 11   | 12    | 49    |
| Totals ...          | 511                               | 2              | 157    | 303     | 38       | 11       | 53                                 | 109   | 101        | 71         | 74   | 103   | 511                                                  | 51      | 102  | 99         | 58         | 73   | 93    | 476   |

It will thus be seen that all the Wards were very equally affected, the case incidence being practically 1 per cent of the population of the Wards, except in the North West Ward where it was only .8 per cent., and in the East where it reached 1.6.

As regards age distribution of the cases notified, it may be mentioned that 159 were under 5 years of age, 303 between 5 and 15, 38 between 15 and 25, and 11 over 25.

As regards Hospital isolation it should be noted that there has been for several years a steady increase in the percentage removed. Thus of 511 cases notified, 476 were isolated, or over 93 per cent., compared with 77, 81, 88 and 91 per cent. in the previous four years. All the Wards except the North West, isolated over 90 per cent of their cases. The North West isolated only 81 per cent., whereas the North East and the West Wards sent to Hospital more than 98 per cent.

As already stated, personal infection, especially by mild and unsuspected cases, and by ignorant or wilful disregard of proper precautions, together with the large amount of inflammable material in the form of unprotected children, accounts for the extent of the epidemic. Among the preventive measures taken to check its spread were the following:—

Prompt isolation in Hospital of over 93 per cent. of cases.

Thorough disinfection of houses and clothing.

Exclusion from School of all children from infected households.

Closure of specially infected Schools.

Repeated disinfection of School rooms.

Systematic inter notification between Health and Education Departments.

Distribution of leaflets on Scarlet Fever and its prevention.

Distribution of disinfectants, with instructions for their proper use.

Voluntary closure of Sunday Schools.

Library books from infected houses removed from circulation.

Supervision of contacts and to a certain extent prohibition of contacts continuing their employment.

It may be mentioned that the 511 cases occurred in 396 separate houses, so that in a large number of houses two or more cases occurred in spite of our attempts at prompt isolation and disinfection.

The death rate was .36 compared with .16, .06, and .02 in the previous three years. The rate for England and Wales was .05, for the 77 great towns .06, and for the 136 smaller towns also .06.

## DIPHTHERIA.

|                 |     |     |     |     |     |     |
|-----------------|-----|-----|-----|-----|-----|-----|
| Number of cases | ... | ... | ... | ... | ... | 90  |
| Deaths          | ... | ... | ... | ... | ... | 7   |
| Death rate      | ... | ... | ... | ... | ... | .16 |

The number of cases notified are more than double that for the previous year, yet the deaths are the same. The cases were distributed in all parts of the Borough with a slightly greater prevalence in the East and North East Wards. During the first half of the year the number of cases notified was below the average of many years, but in July there was considerable recrudescence, a lull in August, as almost always happens, and again recrudescence until the end of the year.

It should be understood that the 90 cases notified were so notified because of the clinical appearance or symptoms, and that in the great majority of cases no bacteriological examination was made before the cases were admitted to Hospital. There were 43 "Swabs" sent for examination from the Borough to the West Riding Laboratory, and of these 18 were returned as positive. Seeing however that 10 of the 18 were from one case and 4 from another, it does not appear as if the diagnosis was confirmed bacteriologically in many of the cases. This is to be especially regretted in regard to those patients kept at home, when in addition to the primary swab for diagnostic purposes, two negative swabs should be got before the case is considered at liberty to mix with other people.

The age distribution shows that 3 cases were under 1 year, 25 between 1 and 5 years, 47 between 5 and 15 years, and 15 over 15 years of age. Details of the monthly and ward distribution are given on the following page:—

## Cases of Diphtheria notified during the year 1911.

| NOTIFIABLE DISEASE. | CASES NOTIFIED IN WHOLE DISTRICT. |        |         |          |          |                |     | TOTAL CASES NOTIFIED IN EACH WARD. |      |            |            |      |       |       | NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY |      |            |            |      |       |       |
|---------------------|-----------------------------------|--------|---------|----------|----------|----------------|-----|------------------------------------|------|------------|------------|------|-------|-------|-----------------------------------------------------|------|------------|------------|------|-------|-------|
|                     | At Ages—Years.                    |        |         |          |          |                |     | Central                            | East | North-East | North-West | West | South | Total | Central                                             | East | North-East | North-West | West | South | Total |
|                     | Under 1                           | 1 to 5 | 5 to 15 | 15 to 25 | 25 to 65 | 65 and upwards |     |                                    |      |            |            |      |       |       |                                                     |      |            |            |      |       |       |
| January             | 3                                 | 2      | 1       | ...      | ...      | ...            | ... | 1                                  | 2    | 2          | ...        | ...  | 1     | 6     | ...                                                 | 1    | 1          | ...        | 2    | ...   | 4     |
| February            | 3                                 | 1      | 3       | ...      | ...      | ...            | ... | 1                                  | 1    | 1          | ...        | ...  | 1     | 4     | ...                                                 | 2    | 1          | ...        | ...  | 1     | 4     |
| March               | ...                               | ...    | ...     | ...      | ...      | ...            | ... | ...                                | ...  | ...        | ...        | ...  | ...   | 3     | ...                                                 | ...  | ...        | ...        | ...  | ...   | 1     |
| April               | 1                                 | 1      | 1       | 1        | 1        | ...            | ... | 2                                  | 1    | 1          | 2          | ...  | 1     | 3     | ...                                                 | 2    | 3          | 1          | 1    | 1     | 5     |
| May                 | 2                                 | 3      | 3       | ...      | ...      | ...            | ... | ...                                | ...  | ...        | ...        | ...  | ...   | 6     | ...                                                 | ...  | ...        | ...        | ...  | ...   | 3     |
| June                | ...                               | ...    | ...     | ...      | ...      | ...            | ... | ...                                | ...  | ...        | ...        | ...  | ...   | 4     | ...                                                 | ...  | ...        | ...        | ...  | ...   | 4     |
| July                | ...                               | 6      | 9       | 2        | ...      | ...            | ... | 2                                  | ...  | 9          | 2          | ...  | ...   | 17    | ...                                                 | ...  | 8          | 1          | 4    | ...   | 15    |
| August              | 1                                 | 1      | 2       | 3        | ...      | ...            | ... | 1                                  | 4    | 1          | 2          | ...  | 1     | 4     | ...                                                 | 1    | 2          | ...        | 1    | ...   | 4     |
| September           | 3                                 | 4      | 6       | 1        | 1        | ...            | ... | 2                                  | 2    | 2          | 3          | ...  | 2     | 10    | ...                                                 | 3    | 2          | 3          | 2    | 2     | 9     |
| October             | ...                               | 1      | 7       | 1        | 1        | ...            | ... | 1                                  | 3    | 2          | ...        | ...  | 2     | 9     | ...                                                 | 2    | 2          | 2          | 2    | 2     | 10    |
| November            | ...                               | ...    | ...     | ...      | ...      | ...            | ... | 1                                  | 2    | ...        | ...        | ...  | ...   | 11    | ...                                                 | 3    | 2          | ...        | ...  | ...   | 12    |
| December            | ...                               | 5      | 6       | 1        | 1        | ...            | ... | 1                                  | 3    | ...        | ...        | 3    | 3     | 13    | ...                                                 | 3    | ...        | 2          | 6    | ...   | 12    |
| Totals              | ...                               | 3      | 25      | 47       | 10       | 5              | ... | 7                                  | 19   | 24         | 12         | 14   | 14    | 90    | 7                                                   | 19   | 20         | 8          | 13   | 13    | 80    |

The 48 primary cases attended 12 Schools. From Eastwood there were 9 cases, Keighley C. of E. 8, Parkwood and St. Mary's each 5, Holycroft, Ingrow and St. Anne's each 4, Highfield 3, Worth and Wesley Place 2.

With regard to Hospital isolation it may be noted that as in the previous year both Central and East Ward isolated all their cases, that is 100 per cent., the South and West Wards isolated 92 per cent., while the North East and North West isolated 83 and 66 per cent. respectively. Thus 88 per cent. of the total number were removed to Hospital, compared with 76, 81, 86, and 81 per cent. in the previous four years.

The 90 primary cases occurred in 83 separate houses, in some 8 per cent. of which there were sanitary defects which may have predisposed to the disease. The milk supply of the infected households was got from 30 different milk dealers, and no suspicion attached to any of the supplies.

The preventive measures adopted include among others:  
Hospital isolation.

Disinfection of infected houses and clothing.

Disinfection of School Classrooms.

Exclusion from School of infected children and contacts.

Two negative swabs obtained from all Hospital cases before declared free from infection.

Free distribution of Antitoxin for poor patients.

The death-rate was .16 compared with .14, .15, and .13 in the previous three years. For England and Wales the rate was 1.3, for the 77 large towns .15, and for the 136 small towns .12.

#### TYPHOID FEVER.

In the 1910 report with 7 cases of Typhoid Fever notified, the remark was made that if, as is generally held, the prevalence or otherwise of Fever in a town is an index of its sanitary condition, the history of the past year yields evidence not only of good sanitation, but is a great improvement on the records of twenty years ago. During 1911 only 4 cases were notified. Of these, one was subsequently withdrawn, one came from a neighbouring Borough to be nursed during the illness already begun, and thus only 2 cases are left to be reported upon.

It is of interest to note that in the decade 1890—1899 an average of 55 cases were notified annually. Then began the crusade against the conservancy or pail system of dealing with nightsoil, and coincident with the introduction of water carriage of excreta there came a decrease in the prevalence of Typhoid Fever, so that in the decade 1900—1909 the notifications fell to 20 annually. In 1910 only 7 cases were reported,

and in 1911 the further fall to 4, or more correctly to 2, makes a record of which a town may congratulate itself. With respect therefore to the 2 cases, inquiries failed to elicit any satisfactory explanation of the probable source of infection. The town's water and the milk supply were first eliminated. No insanitary conditions were found in the houses, and although in one instance shell-fish was partaken of it could not be shown that there had been sewage pollution of the particular banks from which the bivalves came.

The 2 Borough cases occurred, the one in the Central, the other in the East Ward. All were removed to the Fever Hospital, where one proved fatal.

The death-rate was .02, compared with .06, .04, and .02 in the previous three years. For England and Wales the rate was .07, for the 77 great towns .06, and for the 136 smaller towns .07.

#### SUMMER DIARRHOEA AND ENTERITIS.

|                 |     |     |     |     |            |
|-----------------|-----|-----|-----|-----|------------|
| Number of cases | ... | ... | ... | ... | Not known. |
| Deaths          | ... | ... | ... | ... | 26         |
| Death rate      | ... | ... | ... | ... | .59        |

This infectious disease, more generally known as Zymotic Enteritis, found last summer two conditions very favourable to its development, namely, warm weather and a plague of flies. There now seems little doubt but that the pollution of milk by flies or air currents carrying the specific germ or poison is the most fertile source of infection. Reference is elsewhere made (page 50) to the fact that of 20 deaths of infants from this cause all were bottle-fed, so that every measure tending to secure pure water and pure food helps to prevent what is, like Typhoid Fever, simply a filth disease. In former reports emphasis has been laid upon the need for boiling or pasteurising milk, especially when used as infants food, for protecting food stuffs from contamination by house flies and dust germs, for burning all decaying vegetable or organic matter, for paving back yards, etc., as urgent preventive measures, and it is on those lines that the Health Visitor has tried to educate parents during the past year.

The death rate was .59 compared with .25, .15 and .19 in the previous three years, and with 1.06 for England and Wales, 1.31 for the 77 great towns, and 1.14 for the 136 smaller towns.

#### ERYSIPELAS.

The 24 notifications received were rather below the average of the three previous years. The patients were all 25 years of age and upwards, and nearly half the number of cases occurred in the West Ward. Insanitary conditions in connection with the infected houses were removed and other preventive measures taken as appeared necessary.

There were 3 deaths registered from this cause—the first that have occurred in any year since 1903.

#### PUERPERAL FEVER.

Only one case was notified during the year. The Midwives Act is administered within the Borough by the West Riding County Council as the local supervising authority. When a case of Puerperal Fever occurs in the practice of any Midwife, investigation is made by the County Officials, and disinfection of the Midwife's clothing and apparatus is subsequently carried out to my satisfaction.

### E.—Prevalence and Control of Tuberculosis.

#### (a) PULMONARY PHTHISIS OR CONSUMPTION.

|                            |     |     |     |     |            |
|----------------------------|-----|-----|-----|-----|------------|
| Number of cases            | ... | ... | ... | ... | not known. |
| Cases voluntarily notified | ... | ... | ... | ... | 57         |
| Number of deaths           | ... | ... | ... | ... | 50         |
| Death rate                 | ... | ... | ... | ... | 1.15       |

The *crusade* against Consumption has been well maintained during the year, our first aim being towards its prevention. The agencies which do most to check the spread of the disease are more air and sunlight, less overcrowding, greater cleanliness both inside and outside our homes and workplaces, and strict supervision of food supplies. Nor must we forget the important part which education should play in this crusade. Both adult and school populations should be enlightened by lectures, demonstrations, and tuberculosis exhibitions. In the case of infection by Tubercle Bacilli, the process is often a slow one, and the education of school children to the dangers arising from inhaling these bacilli in overcrowded and dusty rooms and workshops may also appear very slow, but in each instance the process is sure, and for that very reason both should occupy the earnest attention of the crusader.

The second problem to be dealt with is the treatment of those already suffering from the disease. Obviously the first step is to classify them into early and advanced cases. Upon the stage of the illness depends whether the patients should go to a Consumptive Sanatorium with the prospect of cure, or go to a Consumptive Hospital where they may be isolated until in time they may either sufficiently recover to be able to go to a Sanatorium, or otherwise end their days in greater comfort than in their own crowded houses, and without being a source of danger to their family and their friends.

Classification, however, into these two divisions is extremely difficult, especially among the working classes. Even compulsory notification affords insufficient help because

many a hardworking man with a family to support cannot afford to give up work until absolutely compelled, even when his failing strength suggests the necessity for rest treatment and a more sanitary environment. Nor can he as a rule afford the needful medical examination of his household exposed to almost unavoidable infection. So far our opportunities of dealing with early cases have been disappointing. In last year's report I emphasised the fact that voluntary notification generally brought to light only advanced cases for whom sanatorium treatment could do little good, except as a means of education, and for whom no provision is made, except such as is provided by the Poor Law Authority.

No doubt in the future the grants under the National Insurance Act will allow of more liberal provision being made for those advanced cases, and for the present I would urge that greater regard be had to the means we already have, earlier notification, earlier sanatorium treatment, and above all improved condition of life for the working classes. By this latter expression I mean air to breathe which is not vitiated by black smoke, trade dust or human exhalations, milk to drink which is not swarming with tubercle bacilli, and houses to live in which are well ventilated, well drained, free from damp and not overcrowded. As this report is a commentary upon the year's work you have already learned what has been done in the way of housing reform. That such should meet with the approval of the general ratepayer is not enough. He should feel that the heavy expenditure involved by the improvement scheme is for a specific purpose, the improved health of the Borough, and especially as a preventive measure in the crusade against Tuberculosis. A proper appreciation of this fact would in my opinion prove an educational factor of immense importance. Ordinarily one meets with amazing opposition to simple details, probably because they are so simple, but after a municipality embarks upon a large housing scheme it cannot, should not (over little things), prove pounds wise and penny foolish. Let me repeat once more:—The demolition of slums and the improved lighting and ventilation of houses have contributed most to the reduction of mortality from Tuberculosis. Damp dwellings in dinghy and dirty alleys so constructed that a foul and foetid atmosphere takes the place of sunlight and fresh air constitute the congenial breeding places of Tuberculosis.

I am very anxious that more should be done in the way of regular and sympathetic *visitation of Consumptives*—in other words that after notification the case should be systematically “followed up” until ended or mended, the patient and the patient's household should remain under trained observation. This need not entail any hardship or publicity. As the public becomes better acquainted with the nature of the disease it

will understand that risk of infection can readily be overcome by attention to a few simple details, and it is only reasonable that both patient and public should see those details faithfully carried out. For instance, a workman may safely follow his regular occupation without being a danger to his fellow workmen, if and so long as he makes a proper use of his sputum flask. On the other hand a consumptive, whether pauper or millionaire, who recklessly spits to the common danger, ought to suffer all the pains and penalties of a lunatic at large.

As formerly mentioned in these reports it is the desire of your officials engaged in this educational work to secure the co-operation of private medical practitioners in inducing householders, and especially the tubercular, to discontinue the dangerous habit of promiscuous spitting and encourage the systematic disinfection or destruction of all tuberculous discharges, including sputum.

If further the public could be made to grasp the fact that the Tubercle Bacillus when kept in a dark place has been proved to retain its vitality for 136 days and that in bright light and exposed to a current of pure air the Bacillus dies in a few hours, then surely the doctrine of sunlight and ventilation should not require to be preached twice. This fact, however, is not grasped, and consequently it must be persistently repeated until the lesson is learned. In dealing with the protection of our milk and meat supplies the subject of tuberculous infection has been referred to, so that one need only summarise the latest scientific evidence on that point. 54,000 human beings are killed every year in England by Tuberculosis. Of these 71 per cent. die from Phthisis due to human tubercle bacilli, and 29 per cent. die from forms of tuberculosis of bovine origin. Further, probably 50 per cent. of all cervical gland-tuberculosis and abdominal tuberculosis are of bovine origin.

The *distribution* of the cases notified, the deaths registered and the death-rate per thousand in the different wards are shown below:—

| Ward.             | Cases Notified | Deaths. | Death-Rate per thousand |
|-------------------|----------------|---------|-------------------------|
| Central ... ..    | 5              | 3       | .6                      |
| East ... ..       | 12             | 7       | 1.0                     |
| North-East ... .. | 9              | 11      | 1.3                     |
| North-West ... .. | 8              | 6       | .6                      |
| South ... ..      | 8              | 9       | 1.1                     |
| West ... ..       | 15             | 14      | 2.3                     |
|                   | 57             | 50      | 1.1                     |

Considering that a great part of the West Ward compares favourably from a sanitary point of view with any other district in the Borough, one can estimate for oneself how unfavourably the remainder of the West Ward must compare with even the worst elsewhere, seeing that the death-rate from consumptives is practically four times as high as in the North West Ward. It should be remembered too that the above figures are nearly an average, except for the Central Ward, where the number is considerably less than usual.

The 57 cases occurred in 54 separate houses, all of which were visited, the sanitary condition inspected, the personal and family history of the case investigated and the necessary directions, verbal and printed, given for preventing the other members of the family becoming infected. It is hoped that in the year now entered upon, the work may be more thoroughly carried out, the Health Committee having decided that the Health Visitor should devote the time formerly given to School Children to supervising cases of pulmonary tuberculosis.

Apart from 7 cases detected during the medical inspection of school children there were during the year 57 cases notified for the first time—33 males and 24 females. This is a slight increase upon last year, especially in the number of cases notified voluntarily—last year 45 cases with 19 voluntary notifications, this year 57 cases and 31 voluntary notifications. The number notified in accordance with the Poor Law and Hospital Tuberculosis Regulations were 26 in both years.

As to the age of the 57 cases, 3 were between 5 and 15, 6 between 15 and 25, 47, between 25 and 65, and 1 over 65.

The occupation of the cases include housekeepers 8, iron-moulders 3, iron foundry labourers 3, mechanics 2, borer 1, machinist 1, tinsmith 1, scissors grinder 1, stone mason 1, mason's labourer 1, employees in worsted mills 5, leather currier 1, surveyor 1, music teacher 1, dressmaker 1, postman 1, gardener 1, curator 1, window cleaner 1, casual labourer 1, and school children.

In connection with the diagnosis of Phthisis 64 microscopical examinations were made of sputum for Tubercle Bacilli, 26 being from the Union Infirmary and 38 for the rest of the Borough. In 25 instances the examinations were positive.

No attempt has yet been made (apart from the special examination of School Children with a Phthisical family history) to ascertain the existence of unrecognised cases in association with the notified cases. This would involve the establishment of a tuberculosis dispensary or some arrangement on similar lines, and very desirable though such an

arrangement would be, the staff of the Health Department is insufficient for the undertaking, and private philanthropic agencies have not yet understood the need of this form of pioneer work.

As regards *Sanatorium and Hospital accommodation* there are about 20 beds available for the use of our Borough consumptives, partly in the Morton Banks Sanatorium and partly in the Union Infirmary. The total provision made by those two institutions for the districts comprised in Keighley Union include 20 beds in the Morton Banks Sanatorium, and 17 beds (9 shelters and 8 huts) in the Union Infirmary. The former are for early or closed cases of tuberculosis, although hitherto not absolutely restricted to such, the latter are mostly occupied by cases of a more advanced nature.

The steady decline in the death rate as shown by the following figures encourages us to greater efforts towards the removal of those causes already referred to, namely, overcrowding, dark, damp, bad ventilated tenements, promiscuous spitting, tuberculous milk, dusty occupations, and such like predisposing and insanitary conditions.

|                |           |                             |     |
|----------------|-----------|-----------------------------|-----|
| In the 5 years | 1881-1885 | the Phthisis death rate was | 2.4 |
| " "            | 1886-1890 | " " "                       | 2.1 |
| " "            | 1891-1895 | " " "                       | 1.7 |
| " "            | 1896-1900 | " " "                       | 1.6 |
| " "            | 1901-1905 | " " "                       | 1.4 |
| " "            | 1906-1910 | " " "                       | 1.2 |
| During         | 1911      | " " "                       | 1.1 |

Thus during the 20 years I have been your Medical Officer the death rate from Consumption has fallen nearly 50 per cent., yet the satisfaction arising from this fact can only be limited so long as the challenge "if preventable why not prevented?" remains unanswered.

#### (b) FORMS OF TUBERCULOSIS OTHER THAN PULMONARY.

The deaths from such causes as Tubercular Meningitis, Tubercular Peritonitis, Spinal Caries, &c., numbered 16, compared with 15 in the previous year and yielded a death rate of .36 compared with .31, .49, and .34 during the previous three years.

From all forms of Tuberculosis the death rate was 1.51. In other words every tenth person last year died from Tuberculosis, and if every tenth person living in the Borough to-day recognised the fact that he or she would also die from the same cause the challenge mentioned above would not long remain unanswered and many suggestions repeated from year to year in these reports would not again require to be mentioned.

## F.—Investigation of other Diseases.

### RESPIRATORY DISEASES.

|                  |     |     |     |     |            |
|------------------|-----|-----|-----|-----|------------|
| Number of cases  | ... | ... | ... | ... | Not known. |
| Number of deaths | ... | ... | ... | ... | 121        |
| Death rate       | ... | ... | ... | ... | 2.7        |

Under this heading are included Bronchitis (54 deaths), Broncho-Pneumonia (34), Pneumonia (23), other respiratory diseases such as Asthma, Laryngitis, Pleurisy, &c. (10 deaths). These diseases are generally associated with climatic conditions, and to that extent do not particularly concern the Health Authority, but it must not be forgot that damp dwellings, dusty occupations and the like play an active part as predisposing causes. In this way the Authority may have to bear responsibility if removable conditions are allowed to remain. Seeing, however, two-thirds of the fatal cases occurred during the 1st and 4th quarters and only one third during the 2nd and 3rd quarters, it is probable that severe and sudden changes in the weather had most to do in causing the diseases.

The death rate of 2.7 for all diseases of the respiratory system is rather higher than 1.9, 2.3, and 2.5 for the previous three years.

### CANCER—MALIGNANT DISEASE.

|                  |     |     |     |     |            |
|------------------|-----|-----|-----|-----|------------|
| Number of cases  | ... | ... | ... | ... | Not known. |
| Number of deaths | ... | ... | ... | ... | 41         |
| Death rate       | ... | ... | ... | ... | .9         |

There were 41 deaths registered under this heading compared with 53, 31, and 44 during the previous three years. Although a heavy toll is exacted year after year by malignant disease, little or nothing definite is known of its nature and cause, and consequently as little can be done to prevent it. That cancer is associated with advancing years and the processes of degeneration is all that can positively be affirmed, but as some consider it may be due to a zymotic cause, free disinfection of house and clothing is carried out when desired or accepted. For many years record has been kept of all houses in which a death from malignant disease has occurred, without establishing the existence of so-called "Cancer Houses."

As regards distribution of the cases it need only be said that taking the average of the past ten years the fewest occurred in the East, North East, and North West Wards, most in the South, Central, and West Wards.

The death rate was .9 compared with 1.1, .6, and .9 during the previous three years.

### RICKETS, TONSILLITIS, &c.

During the past year there has not been any unusual

number of deaths from diseases not already referred to, although from an experience here of over twenty-five years I am inclined to think that Rickets, Rheumatism, Tonsillar Enlargement and Inflammation are very common. The mortality returns do not of course show this, and without some form of sickness-returns one must not dogmatise. Reference has already been made to the clay subsoil as a likely predisposing cause of such a condition as Follicular Tonsillitis, and there is reason to think that female labour in the factories with consequent inattention to proper feeding and cooking may explain why children (4.4 per cent.) show symptoms of Rickets during their early life. Years ago I pointed out the frequency which Rickets when complicated with Bronchitis proved fatal to children, and although many such deaths are registered as Bronchitis, it is probable that but for the malnutrition dependent upon the rickety constitution, the disease would not have proved fatal, or if it did, Rickets and not Bronchitis would more correctly define the primary cause of death.

### **G. Means for Preventing Mortality of Infants.**

The Notification of Births Act, 1907, adopted on January 1st, 1908, is now working harmoniously and fairly satisfactory. Of 902 births 895 were notified within a day or two, or when longer delayed, it was generally due to the parent and medical attendant relying upon each other to send the required information. There still seems to exist some doubt about the necessity of notifying still-born and premature children although the Act distinctly states that the Act shall apply to any child born after the expiration of the twenty-eight week of pregnancy *whether alive or dead*. Thus only 27 still births were notified (and these were not all specified as still born), but 49 still born children were interred in the Cemetery during the year.

As soon as possible after receiving notice of a birth attended by a midwife, or in the poorer parts of the town the Lady Health Visitor pays baby a visit and provided things are for the time being satisfactory, hands over the case to a voluntary Lady Helper, who pays subsequent visits as required. Should baby, however, not appear to be thriving, it again comes under the notice of the Health Visitor until either a medical man is called in or baby develops a better state of health. This arrangement if properly carried out should result in much good work being done.

### **Report of The Lady Health Visitor.**

During the fifteen months I have been working here for the reduction of Infant Mortality, I have almost without exception been well received. Frequently I am asked to call again to see baby, and often when passing along the street I am invited to see some baby that is not thriving or some other small

member of the family. Where my visits are not so welcome, are in those homes where both baby and the house are neglected—where the home is habitually dirty, the feeding bottle lacking attention, and where baby is seldom taken out for an airing, or only into some neighbour's house or draughty doorway.

At these visits advice is given on the proper feeding of infants, how to avoid thrush, suitable clothing, a separate bed for baby, and such like subjects, and the advice has always been listened to if not always carried out.

From the following table it will be seen that the greater number of visits is paid to the poorer districts.

| Wards      | Births notified | Twin- | Still Births | Deaths registe'd | Primary visits | Revisits | Infant mortal-ity |
|------------|-----------------|-------|--------------|------------------|----------------|----------|-------------------|
| Central    | 89              | 1     | 5            | 29               | 81             | 189      | 299               |
| East       | 174             | 2     | 6            | 24               | 142            | 226      | 134               |
| North-East | 184             | 3     | 2            | 28               | 158            | 323      | 156               |
| North-West | 135             | 1     | 3            | 16               | 53             | 71       | 104               |
| South      | 155             | 3     | 2            | 17               | 122            | 225      | 108               |
| West       | 131             | 3     | 9            | 22               | 96             | 407      | 158               |
|            | 868             | 13    | 27           | 136              | 652            | 1441     | 150               |

Of 25 twins who were born alive 13 are living and doing well, 2 died when about three weeks old, and 10 who were prematurely born scarcely survived their birth.

#### PREMATURE BIRTHS.

Of the infant deaths 20.6 are due to premature birth. Many of these premature babies have but little chance of life given to them by those looking after them. They are treated on the same lines as strong full-time babies, being washed and dressed daily when they are quite unfit to bear the exertion, and no special means are taken to keep them warm. A warmly lined clothes basket with one or two hot bottles and swathing baby in cotton wool are seldom thought of, while the exertion of washing and dressing should be avoided for a few days.

The following results were got from enquiries into the possible causes of these premature births.

- 39.2 per cent. of the mothers worked in the mill.
- 26.2 per cent. of the mothers were in ill-health.
- 17.3 per cent. were twin births.
- 17.3 per cent. no special cause.

#### FEEDING.

In the case of infant deaths, investigation was made into

the mode of feeding—the following table shows the results so far as 113 infants were concerned—no analysis being made in the case of the 23 babies who died before they were 3 days old.

| Ward       | Breast Fed |          | Mixed |          | Bottle Fed |          |
|------------|------------|----------|-------|----------|------------|----------|
|            | No         | Per cent | No    | Per cent | No         | Per cent |
| Central    | 7          | 25       | 4     | 14.3     | 17         | 60.7     |
| East       | 6          | 30       | 3     | 15       | 11         | 55       |
| North East | 4          | 18.2     | 6     | 27.3     | 12         | 54.5     |
| North West | 6          | 60       | 1     | 10       | 3          | 30       |
| South      | 4          | 28.6     | 2     | 14.3     | 8          | 57.1     |
| West       | 12         | 63.2     | 2     | 10.5     | 5          | 26.3     |
|            | 39         | 34.5     | 18    | 15.9     | 56         | 49.6     |

#### CAUSE OF DEATH.

*Bronchitis and Pneumonia* caused the death of 19 per cent. of infants under 1 year. The result of death-enquiries into the habits of life of these children shows that the greater proportion was accustomed to sleep in closed-in cradles near to the kitchen fire during the day, even when cooking, baking and washing were carried on. Baby taken from this overheated stuffy room into the cold, only too often developed cold and bronchitis. The healthier practice of putting baby to bed upstairs or in another room after its morning bath is seldom carried out, though this would leave the mother more at liberty to get on with her work and so be free during part of the afternoon to take baby out. This daily airing however, is too often omitted.

*Diarrhoea and Enteritis* were given as the cause of some 15 per cent. of the deaths. Of these 90 per cent. were bottle fed, and the remaining 10 per cent. had cows milk or bread sops in addition to the breast, so that one is justified in saying that all babies dying from diarrhoea were bottle-fed or in other words not a single breast-fed baby died last year from diarrhoea. Unfortunately mothers don't seem to understand that diarrhoea, or more especially summer diarrhoea, is due to infective germs, and that boiling or pasteurising the milk should invariably be carried out. Many mothers say they do boil baby's milk, but on inquiry it is found that boiling consists in scalding, i.e., in merely adding boiling water. The milk too is very frequently kept in the living room, either on the table or in a cupboard and unprotected from dust or flies. Pantries are rare luxuries in the poorer homes, and though a clean cool cellar is an excellent place to keep food, some mothers find it too much trouble to descend to the cellar each time baby requires to be fed.

# INFANT AID SOCIETY AND BABY'S WELCOME.

This Society composed of Voluntary Helpers, continues its work among babies. The names of some 500 babies who have already been visited by me have been forwarded to the Superintendents of the various wards, and by them passed on to the Helpers. Cards with the following particulars, filled in: name, address, occupation of parents, kind of house, number of children alive or dead, how baby is fed, etc., are given to the Helpers, who then are supposed to visit the houses once every four to six weeks. Should baby not be thriving or is ill, or has died, the card should be returned direct to the Town Hall, when I can resume revisiting or fill in the death enquiries as required.

There seems to be some little difficulty about the return of the cards, the Helpers thinking because a baby has died, the card is no longer of use. That however is a mistake, as the home must be visited and enquiries made as to the possible or probable cause of death. The longer these enquiries are delayed, the more difficult it is to get satisfactory details. Other cards are returned without any particulars regarding change of feeding or of any ailments the child may have had. In this way, when the end of the year comes, there are a good many babies about whom very little information has been got and too little evidence of interest taken in their welfare. On the other hand some of the sympathetic active and business-like Helpers have kept their cards admirably, and have been of great help, both to myself and to the mothers whom they visit.

At times Helpers have felt discouraged at not seeing better results from their work. Certainly in some of the worst homes there is little or no improvement, but in others there has been quite a remarkable change in the cleanliness and comfort of the home. The very fact that members of the Society do pay unexpected visits tends to prevent careless and indifferent mothers from being so careless as they otherwise would be. A proof of this is that one rarely comes across a really dirty baby. A wash of some kind is given, though seldom a proper bath until baby is a few months old. No wonder that many mothers are afraid to bath baby earlier, or that baby shrieks its objection, when we consider the bath in common use—a deep, slippery, cold, pot bowl, narrow at the bottom, wide at the top, used alike for bathing baby and baking bread. Such a vessel is naturally objected to by baby who is unable to stretch its limbs without bringing its back into contact with the cold side of the bath and thus getting an unpleasant shock. The shallow oval metal bath which more readily warms, is more durable, less expensive, and in which the mother has more control of the baby is rarely found in cottage homes.

The Infant Aid Society's milk fund has proved of great benefit to many mothers and babies. The latter would have suffered from want of proper food without its timely assistance, while several mothers have been enabled to nurse their babies for longer periods than would otherwise have been the case. Especially in the case of twins has its usefulness been proved.

Milk has been given to 108 mothers who have received altogether 170 pints daily for a period of 28 days. In a few cases special food was given when summer diarrhoea was prevalent. On milk £29 15s. (voluntarily contributed) was spent among the most needy mothers in the following way:—

| Central | East | North-East | North-West | South | West |               |
|---------|------|------------|------------|-------|------|---------------|
| 16      | 11   | 18         | 5          | 30    | 28   | = 108 mothers |
| 31      | 14   | 28         | 7          | 45    | 45   | = 170 pints   |

The removal of the Babies' Welcome from Westgate to the Victoria Mansion has proved a delightful change to all. The formal opening by the Mayoress took place on December 6th and was attended by some 50 mothers and babies. The Wednesday meetings have been very often spoiled by rain, so that it is difficult to average the attendance. The last three Wednesdays there have been 9, 5, and 38 mothers present. Each Superintendent with her Helpers attend the Welcome once in six weeks. The babies are weighed, and the mothers, individually, are advised as to the feeding, &c., of their infants. Thereafter a short talk or lecture is given to the mothers on various subjects connected with the rearing of infants, the health of the home, etc.

A Thrift Club for expectant mothers and sewing classes are also held to teach how to cut out and make up baby clothes.

Before leaving the subject of Infant Mortality, there are still some interesting points to be noted. First, as to the *age at death*. Of 136 infants more than 50 per cent. of the deaths occurred before the infants were four weeks old, and 35 per cent. occurred during the first week. When to the number of premature births are added the still births, it will be seen how largely prenatal influences are at work over which the Health Authority has no control. How soon this serious economic loss of life will lead to more restrictions being placed on the employment of expectant mothers must be determined by facts showing the injurious effects of the employment on foetal life. Thus in the Borough the proportion of expectant mothers actively engaged as mill-hands is small compared with

the total number of mothers, yet from enquiries made in connection with infant deaths it was found that 71 per cent. of the mothers were prior to their confinement engaged at home, while 29 per cent. worked in the mill. Until, however, there is compulsory registration of all still-births it is impossible to calculate the injury to expectant mothers of too prolonged work in the factory, and still more impossible to calculate the injury which infants sustain from the same cause both before and after birth.

Reference to the Local Government Board's Table IV. will show the various *causes* which last year contributed to the unusually high infant mortality, and which have already been touched upon in the Health Visitors report. Analysis of the 136 infant deaths elicited the interesting fact that 45 per cent. of the babies died in houses with through ventilation and 55 per cent. in back-to-back houses. It is not here suggested that back-to-back houses, apart from poverty, inexperience, &c., of the mothers, are specially injurious to infant life, but one might safely conclude that as a predisposing cause they are not altogether exempt. For instance, of 26 infants dying from Pneumonia and Bronchitis, 18 were in back-to-back houses against 8 in through, yet the proportion of back-to-back houses in the Borough is small compared with the number of through. Illegitimacy of birth must also be looked upon as specially prejudicial to infant life. Last year the mortality among legitimate infants was 147, among illegitimate 286.

## H. Vital Statistics

### BIRTHS.

The births registered during the year were 465 males and 441 females, a total of 906 compared with 886, 959, and 946 in the previous three years. Only once during the previous 15 years has the number of births been so few. Owing to the method now followed by the Registrar General of transferring all births and deaths wherever occurring, to the district of residence of the parents or persons concerned, it has been necessary to add two births to and deduct six from the above total. The nett corrected number is therefore 902, giving a birth-rate on an estimated population of 43,550 of 20.6. The steady fall in the birth rate may be seen from the averages of the past 30 years.

|                                  |               |        |          |
|----------------------------------|---------------|--------|----------|
| Birth rate for the 10 years 1881 | 1890 averaged | 30.3   | per 1000 |
| " " " 1891                       | 1900          | " 28.2 | "        |
| " " " 1901-1910                  | "             | 23.8   | "        |
| Birth rate for 1911 was 20.6.    |               |        |          |

For England and Wales the rate for the year was 24.4, 'or

the 77 large towns—that is those with a population over 50,000 the rate was 25.6, and for the 136 smaller towns and boroughs 23.4.

It has become mere repetition to report that the lowest rate is recorded in the North West Ward, where, generally, the expense entailed by a high birth-rate would be least felt, and highest in the poorer quarters of the town where the conditions of life and the prospects of survival are the least satisfactory.

| Ward       | Population | Births | Birth-rate |
|------------|------------|--------|------------|
| Central    | 4375       | 97     | 26.9       |
| East       | 6980       | 178    | 25.5       |
| North-East | 8470       | 179    | 21.1       |
| North-West | 8840       | 153    | 17.3       |
| South      | 8124       | 156    | 19.2       |
| West       | 6071       | 139    | 22.8       |

#### ILLEGITIMATE BIRTHS.

These were considerably below the average of former years, numbering only 28 or 3.1 per cent. of total births, compared with 38, 34, and 42 in the previous three years. As I have pointed out in former reports, illegitimacy has a distinct effect in increasing infant mortality rates and therefore requires your attention as a public health problem, rather than a social or moral one. Thus last year the infant mortality among legitimate births was 146, and among illegitimate 286.

#### DEATHS.

The total deaths registered as occurring within the Borough were 654, giving a crude death rate of 15.0. The Registrar has this year instituted a system of transferring "Residents" and "Non-Residents" to the district in which they have their fixed or usual place of residence and charging casuals or persons without any fixed residence to the district in which they have died. In this way we must deduct the deaths of 37 non-residents who have come from neighbouring districts into the Victoria Hospital and Union Infirmary, &c., for treatment and there died, and add 50 deaths of Residents who similarly had gone to the Fever Hospital, Menston Asylum, and the neighbouring City Hospitals. Thus we get a nett record of 667 deaths, and a nett death rate of 15.2. This is only slightly below the average of the previous 10 years, namely, 15.6. For England and Wales the crude death rate was 14.6, for the 77 great towns 15.5, and for the 136 smaller towns 13.8.

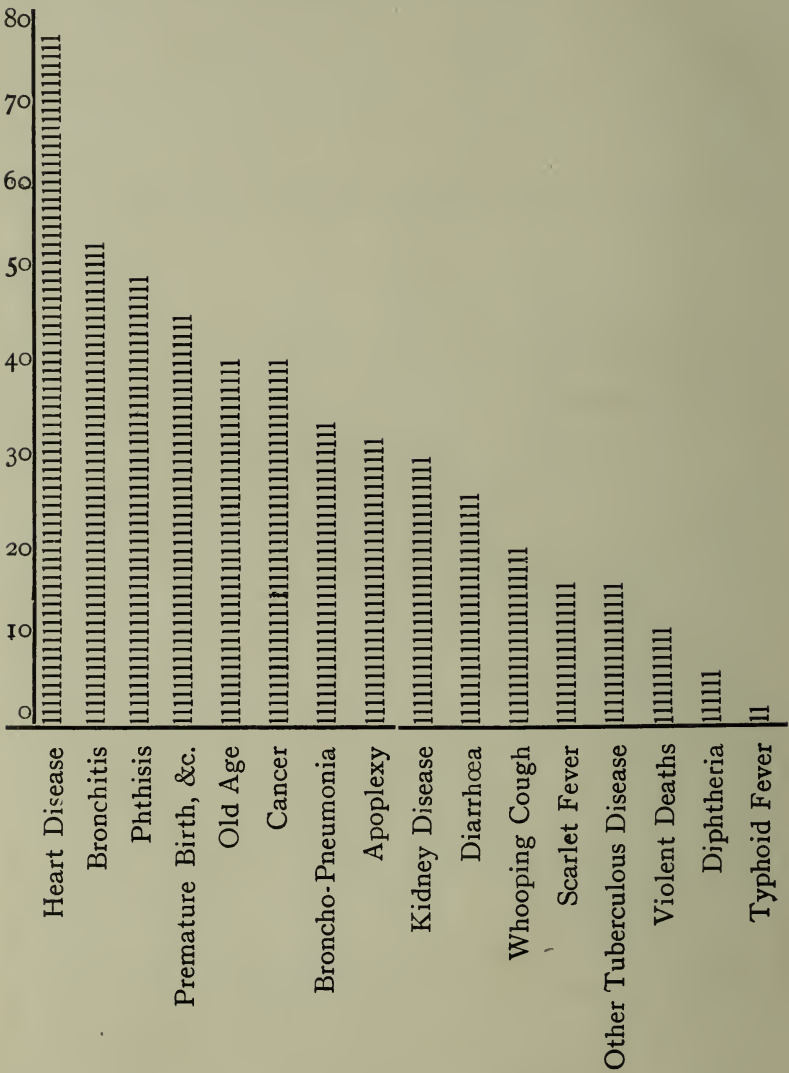
A comparison of the death rate in the several wards may be made from the following table:—

| Ward       | Population | Deaths | Death-rate | Death-rate<br>1901-11 |
|------------|------------|--------|------------|-----------------------|
| Central    | 4735       | 103    | 21.7       | 19.4                  |
| East       | 6980       | 96     | 13.7       | 14.4                  |
| North-East | 8470       | 112    | 13.2       | 12.8                  |
| North-West | 8840       | 116    | 13.1       | 12.3                  |
| South      | 8124       | 106    | 13.0       | 15.7                  |
| West       | 6071       | 134    | 22.0       | 20.0                  |

The next table shows the numbers dying from the *principal causes* of death last year and the previous ten years.

| Cause of Death           | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 | 1910 | 1911 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Small Pox                | —    | 1    | —    | 1    | —    | —    | —    | —    | —    | —    | —    |
| Measles                  | 1    | 37   | 1    | 64   | 3    | 8    | 6    | 35   | 9    | 1    | 3    |
| Scarlet Fever            | 5    | 2    | 2    | 4    | 7    | 3    | —    | 1    | 3    | 8    | 16   |
| Whooping Cough           | 11   | 4    | 10   | 31   | 5    | 8    | 9    | 32   | 2    | 2    | 20   |
| Diphtheria               | 31   | 19   | 7    | 9    | 11   | 15   | 15   | 6    | 7    | 7    | 7    |
| Fever                    | 10   | —    | 4    | 2    | 3    | 1    | 2    | 1    | 2    | 3    | 1    |
| Diarrhoea and Enteritis  | 39   | 19   | 17   | 25   | 11   | 33   | 18   | 15   | 8    | 18   | 26   |
| Phthisis                 | 60   | 65   | 60   | 62   | 56   | 64   | 62   | 50   | 50   | 57   | 50   |
| Other Tubercular         | 22   | 38   | 20   | 34   | 27   | 22   | 29   | 16   | 23   | 15   | 16   |
| Cancer &c.               | 43   | 37   | 33   | 48   | 36   | 37   | 32   | 44   | 31   | 53   | 41   |
| Bronchitis               | 38   | 35   | 57   | 55   | 48   | 49   | 49   | 46   | 54   | 43   | 54   |
| Pneumonia                | 75   | 60   | 84   | 91   | 72   | 61   | 64   | 63   | 48   | 41   | 57   |
| Alcoholism               | —    | 5    | 3    | 3    | 3    | 1    | 6    | 4    | —    | 5    | —    |
| Premature Birth Debility | 45   | 50   | 46   | 43   | 48   | 49   | 41   | 43   | 48   | 22   | 47   |
| Heart Disease            | 87   | 76   | 86   | 80   | 64   | 62   | 50   | 62   | 96   | 91   | 78   |
| Kidney Disease           | 29   | 26   | 27   | 23   | 28   | 22   | 29   | 24   | 23   | 32   | 30   |
| Apoplexy                 | 40   | 34   | 48   | 41   | 34   | 43   | 32   | 47   | 29   | 46   | 32   |
| Old Age                  | 37   | 30   | 39   | 38   | 51   | 42   | 44   | 29   | 46   | 30   | 41   |

CHART SHOWING COMPARATIVE VIEW OF THE PRINCIPAL CAUSES  
OF DEATH DURING 1911



COMPARATIVE STATEMENT OF BIRTH-RATE AND DEATH-RATE  
FOR PAST 30 YEARS.

|                        | Birth-rate. | Death-rate. |
|------------------------|-------------|-------------|
| For 10 years 1881—1890 | 35.3        | 21.7        |
| 1891—1900              | 28.2        | 19.1        |
| 1901—1910              | 23.8        | 15.8        |
| 1911                   | 20.6        | 15.2        |

INFANT MORTALITY.

During 1910 it was a pleasure to report the lowest infant mortality so far recorded. In 1911 however the pendulum has swung the opposite way and the record is one of the highest for several years. There were 902 births registered and 136 deaths of infants under 1 year of age. The infant mortality therefore is 150 per 1000 births. The hot summer, the plague of flies, and the epidemic of Whooping Cough account for the increased mortality, but though accounted for, the mortality is none the less to be lamented, and if possible in future prevented.

The following table shows how the wards compare with each other, and with their average for the previous decennium

| Wards      | Births | Infant deaths | Infant mortality | Average previous 10 years |
|------------|--------|---------------|------------------|---------------------------|
| Central    | 97     | 29            | 299              | 177                       |
| East       | 178    | 24            | 134              | 119                       |
| North-East | 179    | 28            | 156              | 130                       |
| North-West | 153    | 16            | 104              | 95                        |
| South      | 156    | 17            | 108              | 128                       |
| West       | 139    | 22            | 158              | 157                       |

The notoriety gained many years ago by the Central Ward is maintained, and while the Central, East, North-East and North-West Wards have all exceeded the average of the previous ten years, the West Ward is stationary and the South has very materially improved its position. Further consideration of this subject is given on page .

ZYMOTIC DEATHS.

The seven principal Zymotic diseases, Small Pox, Measles, Whooping Cough, Scarlet Fever, Diphtheria, Fever and Diarrhoea, were registered as the cause of 73 deaths. This is

practically the average of the previous 10 years, though considerably above that for 1909 and 1910. Notwithstanding the fact that Scarlet Fever was epidemic during the whole year, the most serious cause of death was Diarrhoea, which carried off 26 victims, of whom 25 were under 2 years of age. The next most fatal Zymotic was Whooping Cough, which caused 20 deaths, 13 being under 2 years and 6 between the age of 2 and 6 years. Scarlet Fever was the cause of 16 deaths, 12 being children under 5 years of age. The mortality from this disease has not been exceeded since 1900, yet the number of fatal cases is small compared with the total cases reported, of which details have already been given. Diphtheria, Measles and Typhoid Fever, together carried off 11 persons, a number much below the average.

In allocating the Zymotic deaths to their respective wards, it appears that the Central had 15, the East 11, North-East 16, North-West 5, South 13, West 13. It appears further that of the 73 deaths from acute infectious diseases, 27 were infants under 1 year, 16 were between 1 and 2 years, 20 between 2 and 5, 7 between 5 and 15 and 3 between 25 and 45 years of age.

The Zymotic death-rate was 1.67, compared with .69, .64 and 1.83 in the previous three years. For England and Wales the rate was 1.88, for the 77 great towns 2.29, and for the 136 smaller towns 1.98.

How each disease contributed to the total may be seen thus:—

| Disease.                         | No. of Deaths | Death rate |
|----------------------------------|---------------|------------|
| Small Pox ... ..                 | 0             | ·00        |
| Measles ... ..                   | 3             | ·07        |
| Scarlet Fever ... ..             | 16            | ·36        |
| Diphtheria ... ..                | 7             | ·16        |
| Whooping Cough ... ..            | 20            | ·45        |
| Typhoid Fever ... ..             | 1             | ·02        |
| Diarrhoea ... ..                 | 26            | ·59        |
| 1911 ... ..                      | 73            | 1·67       |
| Average of previous 10 years ... | 66            | 1·54       |

Details of the distribution of the infectious diseases will be found under their respective headings. Deaths in the Fever Hospital are allocated to their wards, from which the cases were removed.

#### UNCERTIFIED DEATHS AND INQUESTS.

There were 23 deaths informally registered, that is, certi-

ificates for burial were given by the registrar without the cause of death being certified by a medical man or by the Coroner. The number is slightly below the average, though the percentage, 3.4, is considerably above that of most towns.

The inquests held numbered 21, compared with 17, 26 and 17 in the previous three years. Of the total, 11 were held in connection with fatal accidents, and 4 with suicides.

#### STILL BIRTHS.

The number of still-born children interred in the Cemetery during 1911 was 49, compared with 53, 50 and 39 in the previous three years. As this number is greatly in excess of that notified by Doctors and Midwives, it is evident that the terms of the Notification of Births Act, which requires the notification of all births, whether the children are alive or dead, are not complied with. The result has been that investigations into the possible cause of death have not been carried out in nearly 50 per cent. of still-born children, and therefore no information got as to causes, e.g., unsuitable employment of mother, which might be prevented in the future.

Table showing certain vital statistics for the Borough for the past 30 years:—

Comparative Table.

| Year. | Estimated<br>Popula-<br>tion. | Births. | Birth-<br>rate. | Deaths. | Death-<br>rate. | Zym'tic<br>Death-<br>rate | Infant<br>Mort-<br>ality |
|-------|-------------------------------|---------|-----------------|---------|-----------------|---------------------------|--------------------------|
| 1880  | 25,180                        | 841     | 33.3            | 559     | 22.2            | 2.1                       | 177                      |
| 1881  | 25,333                        | 792     | 31.2            | 608     | 24.0            | 2.5                       | 183                      |
| 1882  | 25,883                        | 768     | 29.6            | 567     | 21.9            | 2.9                       | 162                      |
| 1883  | 26,404                        | 724     | 27.4            | 536     | 20.3            | 1.4                       | 172                      |
| 1884  | 26,935                        | 865     | 32.1            | 586     | 21.7            | 2.0                       | 190                      |
| 1885  | 27,477                        | 781     | 28.4            | 560     | 20.3            | 1.9                       | 177                      |
| 1886  | 28,030                        | 878     | 31.3            | 567     | 20.2            | 1.4                       | 132                      |
| 1887  | 28,594                        | 914     | 31.9            | 666     | 23.3            | 3.4                       | 174                      |
| 1888  | 29,168                        | 849     | 29.1            | 637     | 21.8            | 4.0                       | 146                      |
| 1889  | 29,756                        | 878     | 29.5            | 602     | 20.2            | 1.9                       | 163                      |
| 1890  | 30,354                        | 989     | 32.5            | 707     | 23.3            | 2.9                       | 158                      |
| 1891  | 30,965                        | 970     | 31.3            | 664     | 21.4            | 2.1                       | 165                      |
| 1892  | 31,530                        | 907     | 28.4            | 601     | 19.0            | 1.7                       | 158                      |
| 1893  | 32,070                        | 922     | 28.7            | 616     | 19.2            | 2.2                       | 158                      |
| 1894  | 32,750                        | 862     | 26.3            | 600     | 18.0            | 1.8                       | 190                      |
| 1895  | 33,202                        | 899     | 27.0            | 639     | 18.4            | 1.1                       | 177                      |
| 1896  | 38,000                        | 1156    | 28.4            | 695     | 17.7            | 1.5                       | 163                      |
| 1897  | 38,800                        | 1128    | 29.0            | 662     | 17.0            | 1.6                       | 139                      |
| 1898  | 40,000                        | 1195    | 29.8            | 739     | 18.4            | 2.2                       | 171                      |
| 1899  | 40,000                        | 1127    | 27.5            | 790     | 19.3            | 2.7                       | 170                      |
| 1900  | 41,020                        | 1066    | 26.0            | 875     | 21.3            | 3.4                       | 164                      |
| 1901  | 41,564                        | 1120    | 26.9            | 707     | 17.0            | 1.9                       | 142                      |
| 1902  | 41,750                        | 1129    | 27.0            | 667     | 15.9            | 1.1                       | 155                      |
| 1903  | 41,940                        | 1023    | 24.3            | 663     | 15.8            | .6                        | 140                      |
| 1904  | 42,130                        | 1017    | 24.1            | 774     | 18.3            | 2.8                       | 156                      |
| 1905  | 42,320                        | 1029    | 24.3            | 638     | 15.0            | .8                        | 132                      |
| 1906  | 42,510                        | 943     | 22.1            | 664     | 15.5            | 1.1                       | 149                      |
| 1907  | 42,700                        | 986     | 23.0            | 619     | 14.4            | .9                        | 116                      |
| 1908  | 42,910                        | 946     | 22.4            | 667     | 15.5            | 1.8                       | 134                      |
| 1909  | 43,100                        | 959     | 22.2            | 626     | 14.2            | .6                        | 108                      |
| 1910  | 43,300                        | 886     | 20.4            | 601     | 13.8            | .0                        | 101                      |
| 1911  | 43,550                        | 902     | 20.6            | 667     | 15.2            | 1.6                       | 150                      |

L.G.B. Table I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1911 AND PREVIOUS YEARS.

Keighley Borough.

| Year  | Population<br>estimated to<br>Middle of each<br>Year | Births                     |                     | Total Deaths<br>Registered in the<br>District |       | Transferable Deaths†                                     |                                                            | Nett Deaths belonging to the District. |                                       |              |       |       |
|-------|------------------------------------------------------|----------------------------|---------------------|-----------------------------------------------|-------|----------------------------------------------------------|------------------------------------------------------------|----------------------------------------|---------------------------------------|--------------|-------|-------|
|       |                                                      | Un-<br>corrected<br>Number | Nett                | Number.                                       | Rate. | of Non-<br>residents<br>registered<br>in the<br>District | of Resi-<br>dents not<br>registered<br>in the<br>District. | Under 1 Year of Age.                   |                                       | At all Ages. |       |       |
|       |                                                      |                            |                     |                                               |       |                                                          |                                                            | Number.                                | Rate, per<br>1,000<br>Nett<br>Births. | Number.      | Rate. |       |
|       |                                                      |                            |                     |                                               |       |                                                          |                                                            |                                        |                                       |              |       |       |
| 1     | 2                                                    | 3                          | 4                   | 5                                             | 6     | 7                                                        | 8                                                          | 9                                      | 10                                    | 11           | 12    | 13    |
| 1906. | 42,510                                               | 943                        | {<br>Not corrected. | 22.1                                          | 675   | 15.8                                                     | 26                                                         | 15                                     | 141                                   | 149          | 664   | 15.6  |
| 1907. | 42,700                                               | 986                        |                     | 23.0                                          | 648   | 15.1                                                     | 41                                                         | 12                                     | 115                                   | 116          | 619   | 14.4  |
| 1908. | 42,910                                               | 946                        |                     | 22.0                                          | 678   | 15.8                                                     | 30                                                         | 19                                     | 127                                   | 134          | 667   | 15.5  |
| 1909. | 43,100                                               | 959                        |                     | 22.2                                          | 628   | 14.5                                                     | 24                                                         | 22                                     | 104                                   | 108          | 626   | 14.5  |
| 1910. | 43,300                                               | 886                        |                     | 20.4                                          | 611   | 14.1                                                     | 39                                                         | 29                                     | 90                                    | 101          | 601   | 13.8  |
| 1911. | 43,550                                               | 906                        | 902                 | 20.6                                          | 654   | 15.0                                                     | 37                                                         | 50                                     | 136                                   | 150          | 667   | 15.29 |

† “Transferable Deaths” are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided.

Prior to 1911 the “Transferable Deaths” mean for the non-residents registered in the borough (column 8), those belonging to other districts who have died in the Workhouse Infirmary or Victoria Hospital and for Residents registered outside the district (column 9), those belonging to the borough who have died in the Fever Hospital, Menston Asylum, Leeds Infirmary, &c.

No correction for Transferable Births prior to 1911.

Area of District in acres, 3902 acres.

|                                     |        |                      |
|-------------------------------------|--------|----------------------|
| Total population at all ages...     | 43,490 | } At Census of 1911. |
| Number of inhabited houses...       | 10,098 |                      |
| Average number of persons per house | 4.306  |                      |

L.G.B. Table II.

## BOROUGH OF KEIGHLEY.

Cases of Infectious Disease notified during the year 1911.

| NOTIFIABLE DISEASE.  | CASES NOTIFIED IN WHOLE DISTRICT. |                 |        |         |          |          | TOTAL CASES NOTIFIED IN EACH WARD. |       |             |             |       |        | NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY. |          |       |             |             |       |        |        |                |
|----------------------|-----------------------------------|-----------------|--------|---------|----------|----------|------------------------------------|-------|-------------|-------------|-------|--------|------------------------------------------------------|----------|-------|-------------|-------------|-------|--------|--------|----------------|
|                      | At all Ages.                      | At Ages.—YEARS. |        |         |          |          | Central.                           | East. | North-East. | North-West. | West. | South. | Total.                                               | Central. | East. | North-East. | North-West. | West. | South. | Total. |                |
|                      |                                   | Under 1         | 1 to 5 | 5 to 15 | 15 to 25 | 25 to 65 |                                    |       |             |             |       |        |                                                      |          |       |             |             |       |        |        | 65 and upwards |
| Small Pox ...        | ..                                | 3               | 25     | 47      | 10       | 5        | ..                                 | 19    | 24          | 12          | 14    | 14     | 90                                                   | 7        | 19    | 20          | 8           | 13    | 13     | 80     |                |
| Cholera ...          | 90                                | 24              | 157    | 303     | 38       | 17       | 5                                  | 4     | 3           | 2           | 10    | 4      | 24                                                   | 51       | 102   | 99          | 58          | 73    | 93     | 476    |                |
| Diphtheria and Croup | 511                               | 2               | ..     | ..      | ..       | ..       | ..                                 | 53    | 101         | 71          | 74    | 103    | 511                                                  | 1        | ..    | ..          | 1           | ..    | ..     | 4      |                |
| Erysipelas ...       | 4                                 | ..              | ..     | 1       | 2        | 1        | ..                                 | 1     | ..          | 1           | ..    | ..     | 4                                                    | ..       | 2     | ..          | ..          | ..    | ..     | ..     |                |
| Scarlet Fever        | ..                                | ..              | ..     | ..      | ..       | ..       | ..                                 | ..    | ..          | ..          | ..    | ..     | ..                                                   | ..       | ..    | ..          | ..          | ..    | ..     | ..     |                |
| Typhus Fever         | ..                                | ..              | ..     | ..      | ..       | ..       | ..                                 | ..    | ..          | ..          | ..    | ..     | ..                                                   | ..       | ..    | ..          | ..          | ..    | ..     | ..     |                |
| Enteric Fever        | ..                                | ..              | ..     | ..      | ..       | ..       | ..                                 | ..    | ..          | ..          | ..    | ..     | ..                                                   | ..       | ..    | ..          | ..          | ..    | ..     | ..     |                |
| Relapsing Fever      | 1                                 | ..              | ..     | ..      | ..       | 1        | ..                                 | ..    | ..          | ..          | 1     | ..     | 1                                                    | ..       | ..    | ..          | ..          | ..    | ..     | ..     |                |
| Continued Fever      | ..                                | ..              | ..     | ..      | ..       | ..       | ..                                 | ..    | ..          | ..          | ..    | ..     | ..                                                   | ..       | ..    | ..          | ..          | ..    | ..     | ..     |                |
| Puerperal Fever      | ..                                | ..              | ..     | ..      | ..       | ..       | ..                                 | ..    | ..          | ..          | ..    | ..     | ..                                                   | ..       | ..    | ..          | ..          | ..    | ..     | ..     |                |
| Plague ...           | 57                                | ..              | ..     | 3       | 6        | 47       | 1                                  | 12    | 9           | 8           | 15    | 8      | 57                                                   | 4        | 5     | 9           | 2           | 3     | 6      | 29     |                |
| Phthisis ...         | ..                                | ..              | ..     | ..      | ..       | ..       | ..                                 | 5     | ..          | ..          | ..    | ..     | ..                                                   | ..       | ..    | ..          | ..          | ..    | ..     | ..     |                |
| Totals ..            | 687                               | 5               | 182    | 354     | 58       | 82       | 6                                  | 67    | 146         | 137         | 94    | 114    | 129                                                  | 687      | 63    | 128         | 128         | 69    | 89     | 112    | 589            |

Isolation Hospital and Situation : Keighley and Bingley Joint Hospital.      Keighley Rural Sanitary District.

Beds available for Borough cases, 60.      Number of diseases treated concurrently, 4.

## L.G.B. Table IIIa.

## Borough of Keighley.

CAUSES OF, AND AGES AT DEATH DURING THE YEAR 1911.

| Causes of Death.                                                 | Nett Deaths at the subjoined ages of<br>"Residents" whether occurring within<br>or without the District |                 |                        |                        |                         |                          |                          |                          |                   |     | Total Deaths<br>whether of<br>"Residents"<br>or "Non-<br>Residents" in<br>Institutions in<br>the District |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------|------------------------|------------------------|-------------------------|--------------------------|--------------------------|--------------------------|-------------------|-----|-----------------------------------------------------------------------------------------------------------|
|                                                                  | All ages                                                                                                | Under<br>1 year | 1 and under<br>2 years | 2 and under<br>5 years | 5 and under<br>15 years | 15 and under<br>25 years | 25 and under<br>45 years | 45 and under<br>65 years | 65 and<br>upwards |     |                                                                                                           |
| 1                                                                | 2                                                                                                       | 3               | 4                      | 5                      | 6                       | 7                        | 8                        | 9                        | 10                | 11  |                                                                                                           |
| All causes { Certified ...<br>Uncertified...                     | 644<br>23                                                                                               | 130<br>6        | 39                     | 37                     | 22<br>1                 | 17<br>1                  | 80<br>1                  | 161<br>7                 | 158<br>7          | 168 |                                                                                                           |
| Enteric Fever ... ..                                             | 1                                                                                                       | ...             | ...                    | ...                    | ...                     | ...                      | 1                        | ...                      | ...               | 2   |                                                                                                           |
| Small Pox... ..                                                  | ...                                                                                                     | ...             | ...                    | ...                    | ...                     | ...                      | ...                      | ...                      | ...               | ... |                                                                                                           |
| Measles ... ..                                                   | 3                                                                                                       | 1               | 1                      | 1                      | ...                     | ...                      | ...                      | ...                      | ...               | ... |                                                                                                           |
| Scarlet Fever ... ..                                             | 16                                                                                                      | ...             | 2                      | 10                     | 4                       | ...                      | ...                      | ...                      | ...               | 14  |                                                                                                           |
| Whooping Cough ... ..                                            | 20                                                                                                      | 6               | 7                      | 6                      | 1                       | ...                      | ...                      | ...                      | ...               | 1   |                                                                                                           |
| Diphtheria and Croup ... ..                                      | 7                                                                                                       | ...             | 1                      | 3                      | 2                       | ...                      | 1                        | ...                      | ...               | 6   |                                                                                                           |
| Influenza ... ..                                                 | 1                                                                                                       | ...             | ...                    | ...                    | ...                     | ...                      | ...                      | ...                      | 1                 | ... |                                                                                                           |
| Erysipelas... ..                                                 | 3                                                                                                       | 1               | ...                    | ...                    | ...                     | ...                      | 2                        | ...                      | ...               | 2   |                                                                                                           |
| Cerebro-Spinal Fever ... ..                                      | ...                                                                                                     | ...             | ...                    | ...                    | ...                     | ...                      | ...                      | ...                      | ...               | ... |                                                                                                           |
| Heart Disease ... ..                                             | 78                                                                                                      | ...             | ...                    | ...                    | 1                       | 2                        | 7                        | 35                       | 33                | 12  |                                                                                                           |
| Phthisis (Pulmonary Tuberculosis) ... ..                         | 50                                                                                                      | ...             | ...                    | 1                      | 4                       | 7                        | 15                       | 18                       | 5                 | 11  |                                                                                                           |
| Tuberculous Meningitis... ..                                     | 6                                                                                                       | 2               | ...                    | 2                      | 1                       | ...                      | 1                        | ...                      | ...               | 3   |                                                                                                           |
| Other Tuberculous Diseases ... ..                                | 10                                                                                                      | ...             | ...                    | 1                      | 3                       | ...                      | 2                        | 4                        | ...               | 5   |                                                                                                           |
| Rheumatic Fever... ..                                            | 4                                                                                                       | ...             | ...                    | ...                    | ...                     | 2                        | 2                        | ...                      | ...               | 1   |                                                                                                           |
| Cancer, malignant disease ... ..                                 | 41                                                                                                      | ...             | ...                    | ...                    | ...                     | ...                      | 4                        | 23                       | 14                | 10  |                                                                                                           |
| Bronchitis... ..                                                 | 54                                                                                                      | 10              | 5                      | 2                      | ...                     | ...                      | 3                        | 12                       | 22                | 3   |                                                                                                           |
| Broncho-Pneumonia ... ..                                         | 34                                                                                                      | 15              | 8                      | 4                      | ...                     | ...                      | 4                        | 2                        | 1                 | 5   |                                                                                                           |
| Pneumonia (all other forms) ... ..                               | 23                                                                                                      | 1               | 3                      | 3                      | ...                     | 1                        | 6                        | 5                        | 4                 | 7   |                                                                                                           |
| Other diseases of Respiratory organs ... ..                      | 10                                                                                                      | 3               | ...                    | 1                      | ...                     | 1                        | ...                      | 2                        | 3                 | 4   |                                                                                                           |
| Diarrhoea and Enteritis... ..                                    | 26                                                                                                      | 20              | 5                      | ...                    | ...                     | ...                      | 1                        | ...                      | ...               | 1   |                                                                                                           |
| Appendicitis and Typhlitis ... ..                                | 2                                                                                                       | ...             | ...                    | ...                    | ...                     | ...                      | ...                      | 2                        | ...               | 2   |                                                                                                           |
| Alcoholism ... ..                                                | ...                                                                                                     | ...             | ...                    | ...                    | ...                     | ...                      | ...                      | ...                      | ...               | ... |                                                                                                           |
| Cirrhosis of Liver ... ..                                        | 2                                                                                                       | ...             | ...                    | ...                    | ...                     | ...                      | 1                        | 1                        | ...               | ... |                                                                                                           |
| Nephritis and Bright's Disease... ..                             | 30                                                                                                      | ...             | ...                    | 1                      | 1                       | ...                      | 2                        | 19                       | 7                 | 5   |                                                                                                           |
| Puerperal Fever ... ..                                           | 2                                                                                                       | ...             | ...                    | ...                    | ...                     | ...                      | 2                        | ...                      | ...               | ... |                                                                                                           |
| Other accidents and diseases of Pregnancy and Parturition ... .. | 4                                                                                                       | ...             | ...                    | ...                    | ...                     | ...                      | 4                        | ...                      | ...               | 1   |                                                                                                           |
| Congenital Debility Malformation, Premature Birth... ..          | 47                                                                                                      | 46              | 1                      | ...                    | ...                     | ...                      | ...                      | ...                      | ...               | 4   |                                                                                                           |
| Violent Deaths excluding Suicide ... ..                          | 11                                                                                                      | 2               | ...                    | ...                    | 1                       | 2                        | 3                        | 2                        | 1                 | 8   |                                                                                                           |
| Suicides ... ..                                                  | 4                                                                                                       | ...             | ...                    | ...                    | ...                     | ...                      | 3                        | 1                        | ...               | 2   |                                                                                                           |
| Apoplexy ... ..                                                  | 32                                                                                                      | ...             | ...                    | ...                    | ...                     | ...                      | 4                        | 14                       | 14                | 6   |                                                                                                           |
| Old Age ... ..                                                   | 41                                                                                                      | ...             | ...                    | ...                    | ...                     | ...                      | ...                      | 1                        | 40                | 25  |                                                                                                           |
| Other Defined Diseases ... ..                                    | 103                                                                                                     | 28              | 6                      | 2                      | 5                       | 3                        | 13                       | 27                       | 19                | 28  |                                                                                                           |
| Diseases ill-defined or unknown ... ..                           | 2                                                                                                       | 1               | ...                    | ...                    | ...                     | ...                      | ...                      | ...                      | 1                 | ... |                                                                                                           |
|                                                                  | 667                                                                                                     | 136             | 39                     | 37                     | 23                      | 18                       | 81                       | 168                      | 165               | 168 |                                                                                                           |

## L.G B. Table IIIb.

## Borough of Keighley.

CAUSES DEATHS IN WARDS DURING YEAR ENDING 31ST DEC, 1911.

| CAUSES OF DEATH.                                                      | NET DEATHS IN WARDS<br>(AT ALL AGES) |         |      |         |         |       |      | DEATHS IN<br>PUBLIC<br>INSTITUTIONS. |               |
|-----------------------------------------------------------------------|--------------------------------------|---------|------|---------|---------|-------|------|--------------------------------------|---------------|
|                                                                       | All Ages                             | Central | East | N. East | N. West | South | West | Residents                            | Non-Residents |
| I                                                                     | 2                                    | 3       | 4    | 5       | 6       | 7     | 8    |                                      |               |
| All Causes { Certified .....                                          | 644                                  | 100     | 92   | 112     | 110     | 100   | 130  | 131                                  | 37            |
| { Uncertified ...                                                     | 23                                   | 3       | 4    | ...     | 6       | 6     | 4    | ...                                  | ...           |
| Enteric Fever ... ..                                                  | 1                                    | ...     | ...  | ...     | 1       | ...   | ...  | 1                                    | 1             |
| Small Pox ... ..                                                      | ...                                  | ...     | ...  | ...     | ...     | ...   | ...  | ...                                  | ...           |
| Measles ... ..                                                        | 3                                    | 1       | 1    | ...     | ...     | ...   | 1    | ...                                  | ...           |
| Scarlet Fever ... ..                                                  | 16                                   | 1       | 4    | 5       | 1       | 3     | 2    | 14                                   | ...           |
| Whooping Cough ... ..                                                 | 20                                   | 4       | 4    | 2       | ...     | 3     | 7    | 1                                    | ...           |
| Diphtheria and Croup ... ..                                           | 7                                    | 2       | ...  | 3       | 1       | 1     | ...  | 6                                    | ...           |
| Influenza ... ..                                                      | 1                                    | ...     | ...  | ...     | ...     | ...   | 1    | ...                                  | ...           |
| Erysipelas ... ..                                                     | 3                                    | ...     | 1    | 1       | 1       | ...   | ...  | ...                                  | 2             |
| Cerebro-Spinal Fever ... ..                                           | ...                                  | ...     | ...  | ...     | ...     | ...   | ...  | ...                                  | ...           |
| Heart Disease ... ..                                                  | 78                                   | 14      | 9    | 6       | 16      | 18    | 15   | 10                                   | 2             |
| Phthisis (Pulmonary Tuberculosis) ...                                 | 50                                   | 3       | 7    | 11      | 6       | 9     | 14   | 9                                    | 2             |
| Tuberculous Meningitis ... ..                                         | 6                                    | 2       | 1    | ...     | 1       | 1     | 1    | 3                                    | ...           |
| Other Tuberculous Diseases ... ..                                     | 10                                   | 3       | 1    | 2       | 2       | 1     | 1    | 3                                    | 2             |
| Rheumatic Fever ... ..                                                | 4                                    | ...     | ...  | 3       | ...     | 1     | ...  | 1                                    | ...           |
| Cancer, Malignant Disease ... ..                                      | 41                                   | 5       | 10   | 6       | 8       | 7     | 5    | 7                                    | 3             |
| Bronchitis ... ..                                                     | 54                                   | 6       | 8    | 11      | 11      | 9     | 9    | 2                                    | 1             |
| Broncho-Pneumonia ... ..                                              | 34                                   | 9       | 9    | 1       | 4       | 3     | 8    | 5                                    | ...           |
| Pneumonia (all other forms) ... ..                                    | 23                                   | 6       | 2    | 1       | 4       | 4     | 6    | 6                                    | 1             |
| Other Respiratory Diseases ... ..                                     | 10                                   | ...     | 2    | 2       | 2       | 1     | 3    | 4                                    | ...           |
| Diarrhoea and Enteritis ... ..                                        | 26                                   | 7       | 2    | 6       | 2       | 6     | 3    | 1                                    | ...           |
| Appendicitis and Typhlitis ... ..                                     | 2                                    | 1       | ...  | 1       | ...     | ...   | ...  | 2                                    | ...           |
| Alcoholism ... ..                                                     | ...                                  | ...     | ...  | ...     | ...     | ...   | ...  | ...                                  | ...           |
| Cirrhosis of Liver ... ..                                             | 2                                    | ...     | 1    | ...     | ...     | 1     | ...  | ...                                  | ...           |
| Nephritis and Bright's Disease ... ..                                 | 30                                   | 7       | ...  | 5       | 7       | 4     | 7    | 3                                    | 2             |
| Puerperal Fever ... ..                                                | 2                                    | ...     | 1    | ...     | 1       | ...   | ...  | ...                                  | ...           |
| Other Accidents and Diseases of Preg-<br>nancy and Parturition ... .. | 4                                    | ...     | 1    | 1       | 1       | ...   | 1    | 1                                    | ...           |
| Congenital Debility and Malformation<br>and Premature Birth ... ..    | 47                                   | 6       | 7    | 11      | 8       | 6     | 9    | 3                                    | 1             |
| Violent Deaths ... ..                                                 | 11                                   | 2       | ...  | 1       | 2       | 3     | 3    | 5                                    | 3             |
| Suicide ... ..                                                        | 4                                    | ...     | ...  | 1       | 2       | 1     | ...  | 1                                    | 1             |
| Appoplexy ... ..                                                      | 32                                   | 2       | 7    | 4       | 8       | 7     | 4    | 5                                    | 1             |
| Old Age ... ..                                                        | 41                                   | 8       | 5    | 6       | 7       | 8     | 7    | 18                                   | 7             |
| Other Defined Diseases ... ..                                         | 103                                  | 13      | 13   | 22      | 20      | 8     | 27   | 20                                   | 8             |
| Diseases Ill-defined or Unknown ... ..                                | 2                                    | 1       | ...  | ...     | ...     | 1     | ...  | ...                                  | ...           |
|                                                                       | 667                                  | 103     | 96   | 112     | 116     | 106   | 134  | 131                                  | 37            |

L.G.B. Table IV. KEIGHLEY BOROUGH.  
INFANT MORTALITY.

1911. Nett Deaths from stated causes at various Ages under  
1 Year of Age.

[illegible]



## HOME OFFICE TABLES.

## 1. Inspection of Factories, Workshops and Workplaces.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS  
OR INSPECTORS OF NUISANCES.

| Premises.<br>(1)                                                                            | Number of           |                            |                     |
|---------------------------------------------------------------------------------------------|---------------------|----------------------------|---------------------|
|                                                                                             | Inspections.<br>(2) | Written<br>Notices.<br>(3) | Prosecutions<br>(4) |
| Factories ... ..<br>(Including Factory Laundries)                                           | 16                  | 3                          | ...                 |
| Workshops ... ..<br>(Including Workshop Laundries)                                          | 231                 | 3                          | ...                 |
| Workplaces ... ..<br>(Other than Outworkers' premises<br>included in Part 3 of this Report) | ...                 | ...                        | ...                 |
| Total ...                                                                                   | 247                 | 6                          | ...                 |

2. Defects found in Factories, Workshops and  
Workplaces.

| Particulars.<br>(1)                                                                 | Number of Defects |                 |                                          | Number<br>of<br>Prosecu-<br>tions.<br>(5) |
|-------------------------------------------------------------------------------------|-------------------|-----------------|------------------------------------------|-------------------------------------------|
|                                                                                     | Found<br>(2)      | Remedied<br>(3) | Referred<br>to H.M.<br>Inspector.<br>(4) |                                           |
| <i>Nuisances under the Public<br/>Health Acts:—</i>                                 |                   |                 |                                          |                                           |
| Want of cleanliness ... ..                                                          | 3                 | 3               | ...                                      | ...                                       |
| Want of ventilation ... ..                                                          | 3                 | 3               | ...                                      | ...                                       |
| Overcrowding... ..                                                                  | ...               | ...             | ...                                      | ...                                       |
| Want of drainage of floors ... ..                                                   | ...               | ...             | ...                                      | ...                                       |
| Other nuisances ... ..                                                              | 3                 | 3               | ...                                      | ...                                       |
| Sanitary accommodation :                                                            |                   |                 |                                          |                                           |
| Insufficient ... ..                                                                 | ...               | ...             | ...                                      | ...                                       |
| Unsuitable or defective... ..                                                       | 2                 | 2               | ...                                      | ...                                       |
| Not separate for sexes ... ..                                                       | ...               | ...             | ...                                      | ...                                       |
| <i>Offences under the Factory and<br/>Workshop Act:—</i>                            |                   |                 |                                          |                                           |
| Illegal occupation of under-<br>ground bakehouse (s. 101)... ..                     | ...               | ...             | ...                                      | ...                                       |
| Breach of special sanitary<br>requirements for bakehouses<br>(ss. 97 to 100) ... .. | ...               | ...             | ...                                      | ...                                       |
| Other offences... ..                                                                | ...               | ...             | ...                                      | ...                                       |
| Total ...                                                                           | 11                | 11              | ...                                      | ...                                       |

### 3. Home Work.

| Nature of Work | Lists of Outworkers sent by Employers | Failure to keep or send lists |
|----------------|---------------------------------------|-------------------------------|
| Boot Repairing | one                                   | —                             |

### 4. Registered Workshops

| Workshops on Register at the end of year | Number. |
|------------------------------------------|---------|
| Tailors and Hosiers                      | 40      |
| Dressmakers, Milliners, Drapers,         | 61      |
| Shoemakers and Cloggers                  | 48      |
| Plumbers and Tinsmiths                   | 11      |
| Watchmakers and Jewellers                | 9       |
| Cabinet Makers &c.                       | 5       |
| Blacksmiths, Cycle Repairers etc.        | 12      |
| Pork Butchers                            | 11      |
| Tripe Dressers                           | 3       |
| Bakers and Confectioners (under ground)  | 16      |
| " " (above ground)                       | 54      |
| Various others                           | 19      |
| Total                                    | 289     |

### 5.—Other Matters.

| CLASS.<br>(1)                                                                                                                                    | No.<br>(2) |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Matters notified to H.M. Inspector of Factories :—                                                                                               |            |
| Failure to affix Abstract of the Factory and Workshop Act (s. 133) ... ..                                                                        | 5          |
| Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5) |            |
| Notified by H.M. Inspector ...                                                                                                                   | 4          |
| Reports (of action taken) sent to H.M. Inspector... ..                                                                                           | 4          |
| Other ... ..                                                                                                                                     | 0          |
| Underground Bakehouses (s. 101) :—                                                                                                               |            |
| Certificates granted during the year ... ..                                                                                                      | 0          |
| In use at the end of the year ... ..                                                                                                             | 16         |

### Meteorology—Rainfall.

The following observations were taken in Gauges of 5 inch diameter at The Knowle 385 feet, Ivy Cottage, Thwaites Brow, 700 feet, Oldfield Filter Beds, 1008 feet, and Water-sheddles 1115 feet above sea level.

|                 | The<br>Knowle<br>Inches | Ivy<br>Cottage<br>Inches | East<br>Morton<br>Inches | Filter-<br>beds<br>Inches | Water-<br>sheddles<br>Inches | Average<br>for 27<br>years<br>Inches |
|-----------------|-------------------------|--------------------------|--------------------------|---------------------------|------------------------------|--------------------------------------|
| January .....   | 1.57 ...                | 1.27 ...                 | 1.18 ...                 | 1.89 ...                  | 3.50 ...                     | 3.54                                 |
| February .....  | 4.40 ...                | 3.89 ...                 | 3.50 ...                 | 5.31 ...                  | 6.97 ...                     | 2.86                                 |
| March .....     | 1.56 ...                | 1.33 ...                 | 1.28 ...                 | 2.22 ...                  | 3.33 ...                     | 2.75                                 |
| April .....     | 1.62 ...                | 1.28 ...                 | 1.11 ...                 | 2.48 ...                  | 3.43 ...                     | 2.28                                 |
| May .....       | 1.26 ...                | 1.03 ...                 | 0.82 ...                 | 1.56 ...                  | 2.11 ...                     | 2.32                                 |
| June .....      | 3.35 ...                | 3.38 ...                 | 3.94 ...                 | 4.84 ...                  | 5.34 ...                     | 2.52                                 |
| July .....      | 0.77 ...                | 0.50 ...                 | 0.29 ...                 | 0.40 ...                  | 0.53 ...                     | 2.85                                 |
| August .....    | 1.96 ...                | 1.71 ...                 | 1.76 ...                 | 2.48 ...                  | 2.90 ...                     | 3.38                                 |
| September ..... | 2.97 ...                | 2.78 ...                 | 2.86 ...                 | 3.84 ...                  | 3.92 ...                     | 2.63                                 |
| October .....   | 3.78 ...                | 3.00 ...                 | 2.72 ...                 | 4.08 ...                  | 4.16 ...                     | 4.27                                 |
| November .....  | 3.97 ...                | 3.58 ...                 | 3.27 ...                 | 4.80 ...                  | 5.84 ...                     | 3.22                                 |
| December .....  | 6.79 ...                | 5.82 ...                 | 4.94 ...                 | 7.36 ...                  | 8.55 ...                     | 3.87                                 |
|                 | 34.00 ...               | 29.57 ...                | 27.67 ...                | 41.26 ...                 | 50.58 ...                    | 36.49                                |

It will thus be seen that there was a marked deficiency in the total fall, amounting to about  $2\frac{1}{2}$  inches less than the average. The singularly heavy fall in the closing months of the year did much to neutralise the scarcity caused by the long and drougthy summer.

WM. SCATTERTY,

Medical Officer of Health.



# REPORT

OF THE

## BOROUGH SANITARY INSPECTOR

FOR THE

YEAR ENDING 31ST DECEMBER, 1911.

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Health Department,  
Town Hall,  
March, 1912.

TO THE MAYOR, ALDERMEN AND COUNCILLORS,  
GENTLEMEN,

I beg to submit for your information and consideration my third Annual Report as Borough Sanitary Inspector and Superintendent of Public Cleansing.

The Report, of necessity, deals with many phases of sanitary administration, and in order to preserve some sequence it has been divided up as far as possible into sections.

The headings given to the various sections are as follows: Sanitary Inspections and Improvements; the Town's Food Supply; Local Housing Conditions; Sanitation in Factories and Workshops; Infection and Disinfection; Atmospheric Pollution; Public Cleansing. Other subjects which cannot be thus classified will be found at the end of the report.

It is not the intention to single out any section for special comment—it would be difficult to distinguish between them as to their importance—but the problems of Food Inspection, Housing Conditions and Public Cleansing may be found to merit more than a passing reference.

One is pleased to report that through an exceptionally busy year the staff underwent no change. This factor had much to do with the bringing of our work to successful issues.

Statutes and Orders seem to come with great rapidity from the legislative machine, and make efficient administration extremely difficult. A staff competent to discharge the duties of to-day may be almost impotent to cope with those of to-morrow, and we find ourselves at the moment with a staff sufficient for yesterday but insufficient for to-day.

# Sanitary Inspections and Improvements.

## Inspection Work.

The following Table shows the amount of routine inspection work performed by your Sanitary Inspectors :

**Table 1.**

| DETAILS OF INSPECTION WORK.                                  |     |     |     |     |     |     | In-<br>spections | Re-<br>Inspec-<br>tions |
|--------------------------------------------------------------|-----|-----|-----|-----|-----|-----|------------------|-------------------------|
| <b>Dwelling-Houses:—</b>                                     |     |     |     |     |     |     |                  |                         |
| No. Inspected and particulars recorded (H.T.P. Act, 1909)    | ... | ... | ... | ... | ... | ... | 260              | 150                     |
| No. found to be totally unfit for human habitation           | ... | ... | ... | ... | ... | ... | 81               | ...                     |
| No. found to be not in all respects fit for human habitation | ... | ... | ... | ... | ... | ... | 179              | 278                     |
| No. Inspected (Ordinary)                                     | ... | ... | ... | ... | ... | ... | 4002             | 2690                    |
| No. <i>re</i> Infectious Diseases                            | ... | ... | ... | ... | ... | ... | 781              | 363                     |
| No. <i>re</i> other Diseases                                 | ... | ... | ... | ... | ... | ... | 13               | 1                       |
| No. <i>re</i> Water Supply                                   | ... | ... | ... | ... | ... | ... | 24               | 28                      |
| <b>Schools:—</b>                                             |     |     |     |     |     |     |                  |                         |
| No. of Elementary Schools                                    | ... | ... | ... | ... | ... | ... | 26               | 20                      |
| <b>Factories:—</b>                                           |     |     |     |     |     |     |                  |                         |
| No. of                                                       | ... | ... | ... | ... | ... | ... | 15               | 1                       |
| <b>Workshops:—</b>                                           |     |     |     |     |     |     |                  |                         |
| Ordinary                                                     | ... | ... | ... | ... | ... | ... | 116              | 10                      |
| Domestic                                                     | ... | ... | ... | ... | ... | ... | 40               | ...                     |
| Laundries                                                    | ... | ... | ... | ... | ... | ... | 4                | ...                     |
| Outworkers                                                   | ... | ... | ... | ... | ... | ... | 2                | 1                       |
| <b>Bakehouses:—</b>                                          |     |     |     |     |     |     |                  |                         |
| Retail                                                       | ... | ... | ... | ... | ... | ... | 50               | ...                     |
| Underground                                                  | ... | ... | ... | ... | ... | ... | 8                | ...                     |
| <b>Cowsheds:—</b>                                            |     |     |     |     |     |     |                  |                         |
| No. of                                                       | ... | ... | ... | ... | ... | ... | 440              | 63                      |
| <b>Dairies and Milkshops:—</b>                               |     |     |     |     |     |     |                  |                         |
| Dairies                                                      | ... | ... | ... | ... | ... | ... | 2                | 2                       |
| Milkshops                                                    | ... | ... | ... | ... | ... | ... | 10               | ...                     |
| <b>Ice Cream Premises:—</b>                                  |     |     |     |     |     |     |                  |                         |
| No. of                                                       | ... | ... | ... | ... | ... | ... | 40               | 7                       |

**Inspection Work—**(Table I. continued).

| DETAILS OF INSPECTION WORK.     |            |     |     |     |     |     | In-<br>spec-<br>tions | Re-<br>Inspec-<br>tions |
|---------------------------------|------------|-----|-----|-----|-----|-----|-----------------------|-------------------------|
| <b>Food and Drugs:—</b>         |            |     |     |     |     |     |                       |                         |
| No. of Samples                  | (Ordinary) | ... | ... | ... | ... | ... | 33                    | ...                     |
| "                               | (Tuber)    | ... | ... | ... | ... | ... | 18                    | ...                     |
| <b>Water: —</b>                 |            |     |     |     |     |     |                       |                         |
| No. of Samples                  | ...        | ... | ... | ... | ... | ... | 6                     | ...                     |
| <b>Slaughter Houses:—</b>       |            |     |     |     |     |     |                       |                         |
| No. of                          | ...        | ... | ... | ... | ... | ... | 808                   | ...                     |
| <b>Offensive Trades:—</b>       |            |     |     |     |     |     |                       |                         |
| No. of                          | ...        | ... | ... | ... | ... | ... | 53                    | ...                     |
| <b>Common Lodging Houses:—</b>  |            |     |     |     |     |     |                       |                         |
| No. of                          | ...        | ... | ... | ... | ... | ... | 128                   | ...                     |
| <b>Houses Let in Lodgings:—</b> |            |     |     |     |     |     |                       |                         |
| No. of                          | ...        | ... | ... | ... | ... | ... | 28                    | 28                      |
| <b>Fried Fish Shops:—</b>       |            |     |     |     |     |     |                       |                         |
| No. of                          | ...        | ... | ... | ... | ... | ... | 179                   | ...                     |
| <b>Diseases of Animals:—</b>    |            |     |     |     |     |     |                       |                         |
| Swine Fever                     | ...        | ... | ... | ... | ... | ... | 104                   | ...                     |
| Sheep Scab                      | ...        | ... | ... | ... | ... | ... | 0                     | ...                     |
| Anthrax                         | ...        | ... | ... | ... | ... | ... | 0                     | ...                     |
| <b>Offensive Accumulations</b>  |            |     |     |     |     |     | 97                    | ...                     |
| <b>Drains:—</b>                 |            |     |     |     |     |     |                       |                         |
| No. Water Tested...             | ...        | ... | ... | ... | ... | ... | 197                   | ...                     |
| " Smoke "                       | ...        | ... | ... | ... | ... | ... | 108                   | ...                     |
| " Grenade "                     | ...        | ... | ... | ... | ... | ... | 84                    | ...                     |
| " Inspected                     | ...        | ... | ... | ... | ... | ... | 3832                  | 1329                    |
| <b>Sewers:—</b>                 |            |     |     |     |     |     |                       |                         |
| Sewers, Ventilators, etc.       | ...        | ... | ... | ... | ... | ... | 3                     | ...                     |
| Street Gullies                  | ...        | ... | ... | ... | ... | ... | 38                    | ...                     |
| <b>Smoke Observations:—</b>     |            |     |     |     |     |     |                       |                         |
| No. of (General)                | ...        | ... | ... | ... | ... | ... | 72                    | ...                     |
| No. of (Special)                | ...        | ... | ... | ... | ... | ... | 68                    | ...                     |
| <b>Stable Premises:—</b>        |            |     |     |     |     |     |                       |                         |
| No. of                          | ...        | ... | ... | ... | ... | ... | 51                    | 20                      |
| <b>Tents, Vans and Sheds:—</b>  |            |     |     |     |     |     |                       |                         |
| No. of                          | ...        | ... | ... | ... | ... | ... | 14                    | 10                      |
| <b>Markets:—</b>                |            |     |     |     |     |     |                       |                         |
| No. of                          | ...        | ... | ... | ... | ... | ... | 60                    | ...                     |
| <b>Shops (Meat):—</b>           |            |     |     |     |     |     |                       |                         |
| No. of...                       | ...        | ... | ... | ... | ... | ... | 270                   | ...                     |
| <b>Miscellaneous:—</b>          |            |     |     |     |     |     |                       |                         |
| No of                           | ...        | ... | ... | ... | ... | ... | 164                   | 15                      |

Table II.

**Sanitary Improvements made and Defects  
remedied under the supervision of  
the Sanitary Inspectors.**

|                                                                            | By<br>Notice. | Without<br>Notice. |
|----------------------------------------------------------------------------|---------------|--------------------|
| <b>Houses :—</b>                                                           |               |                    |
| Dwelling Houses improved ... ..                                            | 271           | 40                 |
| Provided with sufficient sanitary accommo-<br>dation ... ..                | 198           | 7                  |
| Supplied with a sufficient supply of water ...                             | 4             | ...                |
| Roofs, etc., repaired ... ..                                               | 17            | 1                  |
| Means of ventilation improved ... ..                                       | 8             | ...                |
| New floors laid or repaired ... ..                                         | 6             | ...                |
| Yards re-paved ... ..                                                      | 56            | 7                  |
| Yard pavements repaired ... ..                                             | 20            | 1                  |
| Water spouts fixed or repaired ... ..                                      | 29            | 10                 |
| Down spouts disconnected from drain ... ..                                 | 29            | 5                  |
| Cleansed and limewashed ... ..                                             | 2             | ...                |
| Overcrowding abated .. ..                                                  | 0             | ...                |
| Disinfected... ..                                                          | 584           | ...                |
| Number of Rooms disinfected ... ..                                         | 850           | ...                |
| Nuisances abated arising from keeping of<br>swine and other animals ... .. | 2             | ...                |
| <b>Schools :—</b>                                                          |               |                    |
| Disinfected... ..                                                          | 5             | ...                |
| No. of Classrooms disinfected ... ..                                       | 28            | ...                |
| Sanitary condition improved ... ..                                         | 3             | ...                |
| „ conveniences „ ... ..                                                    | 3             | ...                |
| <b>Factories :—</b>                                                        |               |                    |
| Sanitary conveniences improved ... ..                                      | 1             | 2                  |
| „ „ cleansed ... ..                                                        | 2             | 1                  |
| <b>Workshops :—</b>                                                        |               |                    |
| Cleansed or limewashed ... ..                                              | 210           | ...                |
| Light and ventilation improved ... ..                                      | 1             | 2                  |
| Found with no abstract fixed ... ..                                        | 5             | ...                |
| <b>Outworkers :—</b>                                                       |               |                    |
| Work stopped <i>re</i> Infectious Disease ... ..                           | 0             | ...                |
| Failure as regards list of Outworkers ... ..                               | 0             | ...                |
| <b>Bakehouses (Retail) :—</b>                                              |               |                    |
| Cleansed or limewashed ... ..                                              | 58            | ...                |
| No. found in insanitary condition ... ..                                   | 0             | ...                |
| <b>Common Lodging Houses :—</b>                                            |               |                    |
| Sanitary condition improved ... ..                                         | 1             | ...                |
| Limewashed and cleansed ... ..                                             | 8             | ...                |
| Nuisances found and abated ... ..                                          | 1             | 2                  |
| <b>Houses Let in Lodgings :—</b>                                           |               |                    |
| Sanitary condition improved ... ..                                         | 1             | ...                |
| Limewashed and cleansed ... ..                                             | 20            | ...                |

**Sanitary Improvements made and defects remedied—(Table II. continued).**

|                                                            | By Notice. | Without Notice |
|------------------------------------------------------------|------------|----------------|
| <b>Cowsheds :—</b>                                         |            |                |
| New Sheds built ... ..                                     | 0          | ...            |
| Light and ventilation improved ... ..                      | 11         | ...            |
| Floors repaired or repaved with impervious material ... .. | 10         | ...            |
| Walls rendered ... ..                                      | 8          | ...            |
| Middens removed to suitable position ... ..                | 4          | ..             |
| Farm yards paved... ..                                     | 6          | ...            |
| New drains constructed ... ..                              | 20         | ...            |
| Drains inside abolished ... ..                             | 4          | ...            |
| Limewashed ... ..                                          | 210        | ...            |
| Overcrowding abated ... ..                                 | 3          | ...            |
| Closed or discontinued ... ..                              | 0          | ...            |
| Nuisances found and abated ... ..                          | 4          | ...            |
| <b>Dairies and Milk shops :—</b>                           |            |                |
| Sanitary condition improved ... ..                         | 1          | ...            |
| Limewashed or cleansed ... ..                              | 8          | ...            |
| Nuisances found and abated ... ..                          | ...        | I              |
| <b>Ice Cream Manufacturers :—</b>                          |            |                |
| New apparatus provided... ..                               | 1          | ...            |
| Cleansed ... ..                                            | 20         | ...            |
| Sanitary condition improved ... ..                         | 2          | ...            |
| Drains improved ... ..                                     | 1          | ...            |
| <b>Fried Fish Shops :—</b>                                 |            |                |
| Cleansed ... ..                                            | 50         | ...            |
| Sanitary condition improved ... ..                         | 1          | ...            |
| Means of storage improved ... ..                           | 1          | ...            |
| Receptacle for refuse provided ... ..                      | 1          | ...            |
| <b>Slaughter Houses :—</b>                                 |            |                |
| Sanitary condition improved ... ..                         | 0          | I              |
| Light and ventilation improved ... ..                      | 0          | 0              |
| Drains improved ... ..                                     | 0          | I              |
| Buildings repaired ... ..                                  | 0          | I              |
| Floors repaired or relaid... ..                            | 0          | I              |
| Walls rendered with cement ... ..                          | 0          | ...            |
| Limewashed ... ..                                          | 15         | ...            |
| Closed or discontinued ... ..                              | 0          | ...            |
| <b>Drains :—</b>                                           |            |                |
| Opened out for inspection ... ..                           | 172        | 74             |
| Constructed (new) ... ..                                   | 324        | 43             |
| Reconstructed ... ..                                       | 49         | 27             |
| Cleansed or repaired ... ..                                | 125        | 145            |
| Disconnected from sewer... ..                              | 56         | 17             |
| Ventilated ... ..                                          | 102        | 20             |

# Sanitary Improvements made and defects remedied—(Table II continued).

|                                                                      | By Notice. | Without Notice. |
|----------------------------------------------------------------------|------------|-----------------|
| <b>Drains—continued:—</b>                                            |            |                 |
| Inspection chambers built ... ..                                     | 34         | 5               |
| Under house abolished ... ..                                         | 6          | 1               |
| Openings removed from inside buildings ...                           | 23         | 11              |
| Cesspits abolished ... ..                                            | 3          | 0               |
| Self-cleansing gullies provided ... ..                               | 156        | 45              |
| Sub-soil drains provided... ..                                       | 4          | ...             |
| <b>Sinks:—</b>                                                       |            |                 |
| New sinks fixed ... ..                                               | 3          | 1               |
| Wastepipes trapped or renewed... ..                                  | 80         | 13              |
| Wastepipes disconnected... ..                                        | 40         | 4               |
| <b>Sanitary Fittings:—</b>                                           |            |                 |
| Wastepipes ventilated ... ..                                         | 20         | 1               |
| <b>Urinals:—</b>                                                     |            |                 |
| Cleansed ... ..                                                      | 70         | ...             |
| Improved structurally ... ..                                         | 1          | ...             |
| <b>Water Closets (Ordinary):—</b>                                    |            |                 |
| To replace other forms of closet (Tubs or Middens) ... ..            | 198        | ...             |
| Reconstructed ... ..                                                 | 2          | ...             |
| Repaired ... ..                                                      | 36         | 12              |
| Light and ventilation provided or improved ...                       | 4          | ...             |
| Limewashed or cleansed ... ..                                        | 138        | 44              |
| Additional provided to number of closets previously obtaining ... .. | 118        | ...             |
| Soil pipes repaired or renewed ... ..                                | 11         | ...             |
| Provided with a sufficient supply of water ..                        | 205        | 20              |
| New flush pipes fixed ... ..                                         | 200        | 7               |
| New cisterns fixed... ..                                             | 207        | 10              |
| Abolished ... ..                                                     | 0          | 3               |
| <b>Waste Water Closets:—</b>                                         |            |                 |
| Converted to ordinary water closets ... ..                           | 1          | 1               |
| Repaired ... ..                                                      | 7          | ...             |
| <b>Latrine Closets:—</b>                                             |            |                 |
| Converted into ordinary water closets... ..                          | 31         | ...             |
| Repaired or cleansed ... ..                                          | 12         | 10              |
| Limewashed ... ..                                                    | 5          | ...             |
| <b>Tub Closets:—</b>                                                 |            |                 |
| Converted into water closets ... ..                                  | 80         | 3               |
| Number constructed ... ..                                            | 1          | 1               |
| Abolished ... ..                                                     | 81         | 3               |
| Repaired or cleansed ... ..                                          | 12         | 8               |
| Limewashed ... ..                                                    | 3          | ...             |

## Sanitary Improvements made and defects remedied—(Table II continued).

|                                              | By Notice. | Without Notice. |
|----------------------------------------------|------------|-----------------|
| <b>Midden Privies :—</b>                     |            |                 |
| Converted into water closets ... ..          | 2          | ...             |
| Repaired ... ..                              | 0          | ...             |
| <b>Ashpits :—</b>                            |            |                 |
| Abolished ... ..                             | 1          |                 |
| <b>Ashplaces</b>                             |            |                 |
| New Portable receptacles provided ... ..     | 128        | 3               |
| Furnished with proper doors and coverings .. | 198        | 8               |
| <b>Offensive Trades :—</b>                   |            |                 |
| Premises improved ... ..                     | 0          | ...             |
| Limewashed ... ..                            | 8          | ...             |
| <b>Offensive Accumulations :—</b>            |            |                 |
| Removed ... ..                               | 48         |                 |
| <b>Miscellaneous :—</b>                      |            |                 |
| Not classified above ... ..                  | 26         | 2               |

### Notices.

During the year 251 Statutory Notices were served under the following Acts, requiring the abatement of nuisances or other sanitary improvements :—

Public Health Act, 1875.

Public Health Amendment Act, 1890.

Public Health Acts Amendment Act, 1907.

Housing and Town Planning Act, 1909.

Keighley Corporation Acts, 1898 and 1908.

Regulations made with respect to Dairies, Cowsheds and Milkshops.

Diseases of Animals Acts and Orders.

Bye-laws made with respect to Nuisances.

Bye-laws relating to Common Lodging Houses.

Bye-laws relating to Houses let in Lodgings.

In addition 75 informal Notices were served; and 382 letters written requiring sanitary improvements under the whole of the above Acts, Bye-laws, Regulations and Orders, and in addition under the following :—Factory and Workshop Act, 1901, Rivers Pollution Acts, Petroleum Acts and Orders.

It is very satisfactory to report that so much work has been done without the service of Statutory Notice. Nothing shews more clearly the advance of public opinion respecting the value of domestic sanitation.

Again, a consideration of the figures given in Table II., shewing the amount of work which has been done without any notice whatever, but on the initiative of property owners themselves, goes to further prove this fact, if more proof is needed.

Every possible assistance and advice is given to people desiring to make sanitary improvements, but the fact must not be overlooked that the supervision of this work absorbs much of your Inspectors' time.

The amount of work done under the supervision of your Inspectors is given in Table II. The work done under notice and without notice being given in separate columns.

## The Town's Food Supply.

---

The duty resting upon the Sanitary Inspector, whereby he is held responsible for the purity and wholesomeness of the general food supply, is a serious and oft-times an anxious one.

On the whole it is quite as well that the general public should be ignorant of the wiles of the subtle sophisticator, and to the extent to which food animals may be diseased, but it is necessary that it should know that the inspection of foods is not confined merely to the detection of the milkman, who supplements his supply with plenteous draughts from the cow with the iron tail.

The whole of the food supplies come under notice in so far as it is practicable with the size of the staff. Fortunately many commodities give rise to no anxiety, and the subject of Food Inspection may be roughly divided into five sections, as follows:—Fish, Poultry and Rabbits, Fruit and Vegetables, Milk, and Meat.

Adulteration of foods is dealt with under the heading of **Food and Drugs**, pages 92 and 93.

Before passing on to refer to the various sections, a brief reference to the Final Report of the Royal Commission on Tuberculosis may be useful. This Commission, after 10 years deliberation and scientific experiment, issued its third and final Report in 1911. The first two reports did much to cast grave suspicion on two important foods, milk and meat, as vehicles for the transmission of infective baccilli to the human subject. In the third report this is established as a scientific fact, and the need for systematic and thorough inspection is strongly emphasised thereby.

For any favourite food to be under constant suspicion is almost a tragedy, and to have two primal foods like milk and meat placed in this category would be alarming were it not for the remediable measures now in operation, and which are referred to under the headings of Milk and Meat.

It is expected that the findings of this Commission will be translated into legislation within a short time.

### **Fish.**

The town being far inland, our supplies are derived from other markets, on the sea board and elsewhere. It is not often

any fault has to be found with the supply. Care is taken to intercept any diseased fish, but conditions of unsoundness and unwholesomeness, due to delay on rails—or before it is put on rails—or to fish being unsold on day of arrival, are what engage our attention mainly.

During the year I received 3 special requests for advice on the condition of fish, and 721 lbs. were found to be unfit for human food and were surrendered.

**TABLE III.**

FISH SURRENDERED AS UNFIT FOR HUMAN FOOD

| 1911      |                   |         | 1910      |                   |          |
|-----------|-------------------|---------|-----------|-------------------|----------|
| Fish.     | Why<br>Condemned. | Weight. | Fish.     | Why<br>Condemned. | Weight.  |
| Haddocks  | Unsound           | 371     | Haddocks  | Unsound           | 434 lbs. |
| Cod       | "                 | 350     | Cod       | "                 | 96½ "    |
| Shellfish | —                 | —       | Shellfish | "                 | 31 "     |

Fish frying is referred to under a special heading on page 94.

#### **Poultry and Rabbits.**

Poultry may be dismissed with a word of commendation. There are diseases peculiar to poultry, but all inspected were found quite satisfactory.

Rabbits fall at once into two classes, English and Foreign or Colonial. The home killed are sold in the fresh state. The Foreign or Colonial are received in a frozen condition and are "thawed out" before being offered for retail sale.

No rabbits were found to be diseased, but 110 were found to be unsound following the "thawing out" process. These rabbits were condemned, and surrendered for destruction by the owners.

#### **Fruit and Vegetables.**

Here again inspection served to show that the general supply was sound and of good quality.

The condition of "dressed" goods when exposed for sale was the subject of several complaints in 1910, but last year the condition was more satisfactory. The "dressing" of bruised and unsound fruit is not, however, to be commended. It may serve to give poor people a benefit if every trace of unsoundness is removed and the fruit is consumed straightway, but my complaint is that all evidence is not always removed, and the goods are soon rotten and quite unfit for food.

We saw nothing unusual in "tinned" goods.

### **Milk.**

It would not be difficult to write at length on the several important phases of the milk question, but it is the intention at this point to refer to diseased milk only. The production of our local supply is commented upon under the heading of "Cowsheds," on page 22, and the quality and cleanliness of the supply is referred to under "Food and Drugs," on pages 92-94.

### **Disease in Milk.**

During the year I adopted the plan of tracing, as far as possible, the origin of all tubercular cows which were seen in the slaughter-houses and public abattoir. When it was found that such an animal had come from a local farm, the farm was visited, the cow sheds inspected, samples of milk taken for bacteriological examination, and the animals inspected by your Veterinary Surgeon. In one instance the cows in one shed, with the consent of the farmer, were subjected to the tuberculin test by Mr. Carter, and all were found to be more or less tubercular.

Then we realised,—not for the first time,—how inadequate the law on the point is, and how little the public are protected against diseased milk.

It did not appear to your Veterinary Surgeon that the udders were tubercular, therefore the milk could not be legally stopped. The farmer promised to stop it however, but mark the sequel. About three weeks later I met him purveying milk, and inquired if he was using the milk from the diseased animals still in his possession. He stated emphatically that he was not. I took a sample of his milk and sent it away for bacteriological examination, after three weeks it was certified to be tubercular!!!

The farm was at once visited and the result made known to the farmer, when he admitted that he *had* used the milk from a tubercular cow on that particular morning, but only a "quart or so." A quart of infected milk put into a churn of new warm milk would give the bacilli every facility for development and multiplication, but the farmer thought it would not matter.

It afterwards transpired that infected milk had been used daily, notwithstanding the promise given not to use the milk at all. Much diseased milk had thus been sold and used for human food, and who can estimate the results?

Following this exposure, I have reason to think no more tubercular milk was sold. The diseased animals were removed without our knowledge and sent to various places miles away, where they may be still responding to the call of the dairymaid and issuing diseased milk.

That is the law as it stands at present. An animal may give tubercular milk in abundance, but unless the udder is clinically tubercular the milk may be sold.

An effort was made to overcome this discrepancy in the Keighley Corporation Bill, 1912, but the clause, clashing with other interests, gave rise to opposition from which it was deemed expedient to withdraw. It is hoped, however, that the Government will remove the anomaly in the proposed new Milk Bill.

There were other cases of interest, but this will suffice to show how weak the present powers really are in this connection. A Royal Commission was badly needed, so is effective legislation.

### **Bacteriological Examination of Milk.**

Samples were forwarded to the County Laboratory at Wakefield during the year, and of these 3 were returned as positive. The steps taken to prevent the sale of milk from the animals concerned is detailed on page 81.

### **Meat.**

This is the "*piece de resistance*" of food inspection at the present time.

By "meat" is meant butchers' meat only, as no tinned goods were found unsatisfactory. The record for the year tells the same old story, very little of any disease other than tuberculosis, but sufficient of that.

Several cases proved to be of great pathological and scientific interest, as, for instance, extensive lesions of "round cell Sarcoma" in a young bullock, but it was, as a rule, the same drab tale of tuberculosis.

Our method is to see all, or as many as possible of the animals slaughtered within the Borough, and, as you are aware, it is binding upon butchers to give notice, under our Slaughter-house Regulations, of all diseased or unsound animals brought into a slaughter-house.

These two facts, taken together, enable one to give an accurate account of the local meat trade, and when it is said that the general quality of meat prepared for sale in the Borough was good, it is no empty boast, but simple truth.

The law remains the same, and our high standard of inspection may be averted by slaughtering animals in other places, and afterwards bringing meat into the Borough, cut up, it may be, into joints, when inspection under certain circumstances may fail to detect disease, even though the animal had been suffering from tuberculosis.

This is wrong. No meat should be allowed to come into the town without a recognised certificate of inspection, or a request for inspection before sale. It makes it easily possible for people who have equipped themselves with the necessary facilities for efficient inspection, to still be liable to get diseased meat, because the same facilities are not provided in other places, where they have no control.

Accurate figures and statistics are required in this connection, and I invite your attention to the Tables IV to IX., because I believe the figures there given to be reliable.

The local conditions of inspection and notification make traffic in "screw" beasts not worth while. Only good sound animals are purchased, free, as far as the practical eye and deft touch of the butcher can tell, from tuberculosis, and yet lesions of this disease, more or less extensive, were found on post mortem in 99 instances.

These figures are not abnormal. The disease prevails in all other places to the same, and perhaps to a greater extent. Whether it be discovered or not, is a matter for the Local Authorities, but one thing is clear, if tuberculous meat is not condemned it is consumed as human food.

It is no use saying that the disease is absent from any place. Would that it were so. The greater likelihood is that where no system of notification and efficient inspection obtains, the disease may be much more rampant than it is with us.

Our method of inspection is to treat every case on its merits, and submit all suspicious carcasses to a minute examination. The work cannot be performed by any rule of thumb method or rigid code of rules, but the Recommendations of the Royal Commission are valuable as a basis from which to work.

A complete diagnosis of every post mortem is kept for reference purposes.

During the year I considered it necessary to consult with the Medical Officer of Health or the Veterinary Surgeon in special cases.

## **Tuberculosis in Food Animals.**

### **Cattle.**

A rough estimate of the number of cattle slaughtered within the Borough during the year is 3,500. Of this number 60 were found to be tubercular. In 7 instances the whole carcase and organs were totally condemned. In 15 cases parts of the

carcase and organs were surrendered, and in the remaining 38 cases one or more of the organs were found to be unfit for food.

### **Pigs.**

Probably 3,000 pigs were slaughtered, 37 of which were found to be tubercular. In 17 cases the carcase and all organs were condemned. In 17 instances the lesions were confined to the head and perhaps one organ, which in each case were condemned, whilst in the three remaining instances one organ only was found to be slightly affected, when only the affected part was condemned.

### **Sheep.**

Out of 9,000 sheep none showed any suspicion of tuberculosis. It would have occasioned surprise had it been otherwise, as this animal enjoys an enviable immunity from the disease.

### **Notification of Diseased Animals.**

In accordance with the Slaughter House Regulations, I received from butchers 78 notifications of diseased animals in slaughter houses, and 29 others were discovered during inspection by the Assistant Inspectors, or came to my knowledge in other ways.

### **Surrenders of Diseased Meat.**

The whole of the meat condemned was voluntarily surrendered by the butchers, who also on the whole responded to the imposed duty of notification with commendable promptness. There were cases where notification was not made, but I never felt that the circumstances demanded that I should recommend legal proceedings, with the exception of one case, when legal proceedings would certainly have been taken had it been thought the law covered the point at issue. Personally I would have been content to have had this case tried by a bench of honest butchers.

It must not be thought this difficult work proceeds without murmurings, it never will under present arrangements, but it affords me more pleasure to report that the traders have accepted the position, and made voluntary surrenders following an explanation of the diseased conditions, than it would to record a long string of prosecutions.

The difficulties of complete inspection are referred to, under the heading of Slaughter-houses, page 88.

TABLE IV.

Return showing number of Animals Slaughtered at Westgate Abattoir during 1911 and found to be affected with Tuberculosis.

| Animals. | Total No. Slaughtered. | No. of Animals found to be affected with Tuberculosis. | Tuberculous Animals. |                         |
|----------|------------------------|--------------------------------------------------------|----------------------|-------------------------|
|          |                        |                                                        | Totally Condemned    | Condemned in part only. |
| Cattle   | 941                    | 30 or 3'1%                                             | 5 or 53%             | 25 or 2.65%             |
| Pigs     | 567                    | 1 or 1'7%                                              | 1 or 1'7%            | 0 —                     |

TABLE V.

Return shewing number of Animals Slaughtered without the Westgate Abattoir during 1911, and found to be affected with Tuberculosis.

| Animals. | Total No. Slaughtered. | No. of Animals found to be affected with Tuberculosis. | Tuberculous Animals. |                         |
|----------|------------------------|--------------------------------------------------------|----------------------|-------------------------|
|          |                        |                                                        | Totally Condemned.   | Condemned in part only. |
| Cattle   | 2,559                  | 30 or 1'17%                                            | 2 or '07%            | 27 or 1'14%             |
| Pigs     | 2453                   | 36 or 1'46%                                            | 16 or '61%           | 21 or '85%              |

## Meat Condemned as unfit for Human Food, and Surrendered.

### TABLE VI.

Carcases surrendered as totally unfit for human food.

|             | Tuberculosis. | Malignant Diseases | Inflammatory Diseases, Pleurisy, Peritonitis, Pericarditis, &c. | Asphyxiation |
|-------------|---------------|--------------------|-----------------------------------------------------------------|--------------|
| Cows ..     | 7             | ...                | ...                                                             | ...          |
| Bullocks    | ...           | ...                | ...                                                             | ...          |
| Heifers ... | ...           | ...                | ...                                                             | ...          |
| Pigs ..     | 17            | ...                | I                                                               | ...          |
| Sheep ..    | ...           | ...                | ...                                                             | I            |

### TABLE VII.

Carcases partially surrendered as unfit for human food.

|             | Tuberculosis. | Malignant Diseases | Inflammatory Diseases, Pleurisy Peritonitis, Pericarditis, &c |
|-------------|---------------|--------------------|---------------------------------------------------------------|
| Cows ...    | 14            | ...                | ...                                                           |
| Bullocks .. | ...           | I                  | ...                                                           |
| Heifers ... | I             | ...                | ...                                                           |
| Pigs ...    | ...           | ...                | I                                                             |
| Sheep ...   | ...           | ...                | I                                                             |

TABLE VIII.

Various organs surrendered as unfit for human food.

|                                                       |   |        | Heads | Lungs | Livers | Stomachs | Kidneys | Uterus | Heart | Spleen | Udders | Mesentery |
|-------------------------------------------------------|---|--------|-------|-------|--------|----------|---------|--------|-------|--------|--------|-----------|
| Tuberculosis                                          | { | Cattle | 18    | 45    | 21     | 15       | 15      | 14     | ...   | 12     | 6      | 39        |
|                                                       | { | Pigs   | 18    | 20    | 21     | 21       | ...     | ...    | ...   | 16     | ...    | 24        |
|                                                       | { | Sheep  | ...   | ...   | ...    | ...      | ...     | ...    | ...   | ...    | ...    | ...       |
| Malignant Diseases ...                                | { | Cattle | ..    | 1     | 1      | 1        | 1       | ...    | ...   | 1      | ...    | ...       |
|                                                       | { | Pigs   | ...   | ...   | ...    | ...      | ...     | ...    | ...   | ...    | ...    | ...       |
|                                                       | { | Sheep  | ...   | ...   | ...    | ...      | ...     | ...    | ...   | ...    | ...    | ...       |
| Bacterial Diseases ...                                | { | Cattle | ..    | ...   | 4      | ...      | 1       | ...    | ...   | ...    | ...    | ...       |
|                                                       | { | Pigs   | ...   | ...   | 1      | ...      | ...     | ...    | ...   | ...    | ...    | ...       |
|                                                       | { | Sheep  | ...   | ...   | 1      | ...      | ...     | ...    | ...   | ...    | ...    | ...       |
| Parasitic Diseases ...                                | { | Cattle | ..    | 1     | ..     | ...      | ...     | ...    | ...   | ...    | ...    | ...       |
|                                                       | { | Pigs   | ...   | 10    | ...    | ...      | ...     | ...    | ...   | ...    | ...    | ...       |
|                                                       | { | Sheep  | ...   | 20    | 1      | ...      | ...     | ...    | ...   | ...    | ...    | ...       |
| Inflammatory Diseases. Pleurisy, Peritonitis, &c. ... | { | Cattle | ...   | 5     | ...    | ...      | 1       | ...    | 2     | 1      | 3      | ...       |
|                                                       | { | Pigs   | ..    | 12    | 7      | 1        | ...     | ...    | 2     | 2      | ...    | 1         |
|                                                       | { | Sheep  | ..    | 1     | ...    | ...      | ...     | ...    | ...   | ...    | ...    | ...       |

TABLE IX.

Total weight of condemned meat.

|                         |     | Tons | Cwts. | Qrs. | Lbs. |
|-------------------------|-----|------|-------|------|------|
| Beef in carcase ...     | ... | 2    | 10    | 0    | 0    |
| Pork in carcase ...     | ... | 2    | 4     | 0    | 0    |
| Meat not in carcase ... | ... | 0    | 10    | 0    | 25   |
| Organs ...              | ... | 1    | 2     | 3    | 26   |
| Total ...               | ... | 6    | 7     | 0    | 23   |

## Slaughter Houses.

The old order of things has not changed. We still have one public and eleven private slaughter houses. They have been kept under constant supervision, no less than 808 visits having been paid in the year.

We are not, as a progressive town, well provided for in this matter. Much attention is paid to the quality of food exposed for sale, and the same attention is necessary as regards the place of preparation.

The atmosphere in low-lying or congested parts of the town, or in those parts where the general condition is less cleanly, is not one conducive to improve our meat by its having to hang for a time therein. This applies to our own slaughter house, as much as to any other.

The accommodation for slaughtering is insufficient, and we find several of the slaughter houses badly overcrowded. This, in a slaughter house already insanitary, is the acme of imperfection.

It is unnecessary to detail the shortcomings of the slaughter houses, including our own. They are well known. We require to think more now of the remedy.

This is plain also. A new Public Abattoir is urgently needed. A well equipped, suitably placed, and carefully managed Abattoir would be a valuable aid to the health of the community, and it is satisfactory to report that the matter is now under consideration.

The foregoing remarks on meat inspection, if they prove anything, prove the need for a complete and regular system of inspection. The practical, to say nothing of the physical, difficulties of this work are very real. Where slaughter houses are overcrowded, meat inspection is only performed under great disadvantages, and ownership of any diseased organ, or meat, is sometimes difficult to demonstrate.

To prove this one might cite a recent illustration. A number of butchers use one private slaughter house. One day a pair of lungs, distinctly tubercular, were found hanging in that slaughter house, but every man slaughtering there emphatically denied ownership. It was thought by the majority that they belonged to either A or B. A said they belonged to B, and B said they belonged to A. All the shops represented by these butchers had to be visited, and what was left of the meat dressed in that particular slaughter house was inspected, but no diseased conditions were found in the parts remaining, which does not signify at all that the carcasses were altogether free from disease. So sure were all the butchers using the slaughter house that the diseased lungs did not belong to any of them, that they had no difficulty in account-

ing for *eight* sets of lungs, notwithstanding that only *seven* animals had been slaughtered that week.

This on the face of it, was a case for further proceedings, but of one thing I was perfectly sure, and that was that the diseased organs did not belong to the owner of the slaughter house. I had previously inspected those of which he was the owner—in fact, they were in my possession at the time. Moreover, this gentleman had rendered me every assistance in his power to find the actual owner, and as proceedings would have had to be instituted against him, I did not recommend that course.

Another difficulty is that of supervising *all* the animals slaughtered. A short time ago I received a telephone message from a butcher to remove—not inspect—a pig. I found that the pig had died, and, *immediately* after the visit of an Inspector the pig had been removed into the slaughter house, bled, and dressed as if for sale. The owner was waiting to inform me that the pig had only been dressed “for curiosity, to see what it had died from.” No objection could be taken to a search for knowledge, but the pig had been scalded and scraped!!!

A strong objection to the present system is that carcasses which may appear to be perfectly sound, and give rise to no suspicion on the part of the butcher, may still be tubercular.

It is saying nothing to the discredit of the butchers when I say that this occurred perhaps a dozen times during the past year, as he can scarcely be expected to know and understand the vagaries of so peculiar a disease.

The lesions of tuberculosis acknowledge no regular sequence, but show extraordinary variation, making it necessary for each carcase to be efficiently inspected before sale. This can only be performed with complete satisfaction in a Public Abattoir.

TABLE X.

Return shewing number of Animals Slaughtered at Westgate Abattoir.

| Year.    | Cattle. | Sheep. | Calves. | Pigs. |
|----------|---------|--------|---------|-------|
| 1910     | 989     | 3144   | 39      | 426   |
| 1911     | 941     | 3064   | 47      | 567   |
| Decrease | 48      | .80    | —       | —     |
| Increase | —       | —      | 8       | 141   |

## **Dairies, Cowsheds, and Milkshops.**

This "lactic trio" are always bracketed together in the various Orders made by the Local Government Board, but each is of sufficient importance to merit special consideration.

### **Dairies.**

Strictly speaking, we have but one or two dairies in the town, but using the term somewhat loosely, we have 63 of what are commonly termed Dairy Farms.

The dairies afford no reason for complaint, having been kept satisfactorily.

On the dairy farms, about 600 to 630 milk cows are housed. We have thus produced within the Borough somewhere about 450,000 gallons of milk annually, and, of course, much more is brought in from the districts adjoining.

### **Cowsheds.**

There are 105 cowsheds on the 63 dairy farms, housing on an average six cows per shed.

The past year was a most important one, and saw great progress in the direction of hygienic housing of cattle.

Many of the cowsheds underwent internal reconstruction, and were brought to a satisfactory state of sanitary efficiency.

Not only were the means of lighting and ventilation improved, drainage reorganised, floors made impervious, cubic space increased, but other and not less important improvements were effected.

Inside walls were rendered with cement plaster, and brought to a smooth and easily washable surface; unnecessary dust retaining timbers were removed, but the most important, perhaps, was one affecting the local principle of housing cattle in sheds which, forming part of the barn, are open to the hay and other feeding materials. This principle is a wrong one.

For some time past I have carefully observed the number of cattle in the slaughter houses showing intestinal lesions of tuberculosis, when no other lesions have been present, and it would appear that infection by ingestion has been the cause.

When one considers that many cows are made to stand with their heads only a few feet from the hay, which forms a staple food, and, at the same time, is aware that a tubercular cow—and where are the sheds which are "tubercle free"?

when coughing, discharges a bacilli-laden moisture with sufficient force to deposit the bacilli on to feeding stuffs stored only a few feet away, thus directly infecting them, it follows that much intestinal infection may be due to this fact.

In many sheds the hay and other food stuffs have now been entirely removed from this possibility by making the mistal self contained.

Another improvement has been to secure ventilation with pure air. In many places what air does enter a cowshed has first to pass over the manure midden. This also is wrong, and where no other means of ventilation are obtainable we have had the midden removed to a more suitable position.

A number of fold yards have been paved, and in many instances the old "throw out" hole from the mistal to the midden has been replaced by a fixed window—both very desirable improvements.

In the majority of cases the cattle in the town are now housed under good hygienic conditions, but we have yet a few sheds which require to be further improved.

### **Cow keepers.**

The sheds have been better kept. The greater regard for scrupulous cleanliness in all milking operations, and in keeping cattle well groomed is a slow, but let us hope sure, process on the part of the farmer. We have cowsheds where cows are kept as clean and free from dirt as racehorses, and—we have others, and not a few.

It would be a good thing if cowsheds were subject to annual licence, as we could then assist the man who is anxious to supply the pure article, and punish the man who would not. At present the former, retailing milk of guaranteed cleanliness, does so because he appreciates his duty to the public and to his cattle. He receives no more for his produce than the most careless among farmers, and the public do not appear to mind so long as the price is low.

Some keepers make much ado about the inconvenience of the seasons fixed for whitewashing, but the complaint is not altogether justifiable. It is not a long process and the use of the time spent in grumbling would go a long way to complete the operation.

### **Cattle.**

Reports as to the health of the cattle have been presented from time to time by your Veterinary Surgeon and have been fairly satisfactory.

### Milkshops.

Our milk supply comes direct from the farm to the dwelling house. There are in the Borough 64 milk purveyors. Milkshops only number eight, and from these only very small quantities are sold.

In each instance the milk is kept in a white enamelled receptacle provided with a close fitting cover. The difficulty is with storage. The receptacle is not always placed in a suitable position, but is left in a living room or at the top of the cellar steps, even when a nice cool larder is provided.

To bring milk sellers to see the need for protecting *small* quantities of milk from the risk of contamination is not a simple matter, but we are gradually achieving that end.

### Food and Drugs as tested by Qualitative Analysis.

The work of sampling food and drugs for analysis is divided between an Inspector of the County Council and myself. Both Inspectors operate within the Borough, but not in conjunction.

All samples are forwarded to the County Analyst, who supplies a special report on each sample.

The sampling work done by the County Food and Drugs Inspector, and the result thereof, is shewn in the Report which he has kindly supplied, and which is as follows:—

“Return shewing the number of samples taken under the Sale of Food and Drugs Act by the County Inspector during the year 1911:—

|                     | No. of<br>Samples. |                   | No of<br>Samples. |
|---------------------|--------------------|-------------------|-------------------|
| Butter ... ..       | 13                 | Marmalade ... ..  | 2                 |
| Cheese ... ..       | 1                  | Margarine ... ..  | 1                 |
| Crushed Linseed ... | 1                  | Milk ... ..       | 31                |
| Compound Liquorice  |                    | Olive Oil ... ..  | 1                 |
| Powder ... ..       | 1                  | Rice ... ..       | 2                 |
| Cream ... ..        | 2                  | Sausage ... ..    | 1                 |
| Golden Syrup ... .. | 3                  | Savoury Ducks ... | 1                 |
| Jam ... ..          | 2                  | Spirits of Sal    |                   |
| Lard ... ..         | 1                  | Volatile ... ..   | 1                 |
|                     |                    |                   | —                 |
|                     |                    | Total ... ..      | 64                |
|                     |                    |                   | —                 |

“Four of the samples were found to be adulterated or of inferior quality, as follows:—

“One sample of butter was found to consist entirely of margarine, the vendor was a stranger to the town, and had been going about for two or three days. The Police were able

to trace this man and another in company with him. As neither of the men had any fixed abode they were apprehended and charged with obtaining money by false pretences. They were brought before the Borough Justices, and by them committed to the Quarter Sessions, where they each received three years imprisonment under the Borstal System.

“ The sample of sausage was found to contain 56 grains per lb. of boric acid, and the sample of Savoury Ducks 46.9 grains per lb. of boric acid. (The maximum dose of boric acid fixed by the Medical Council is 15 grains).

“ The sample of Spirit of Sal Volatile was found to have an excess of 40 per cent. of ammonium carbonate, and 20 per cent. deficiency in ammonia (gas). The County Analyst was of opinion that the excess and deficiency were due to careless preparation of the article.

“ The vendors of the last three samples referred to were warned from the Legal Department of the County Hall, Wakefield.

“ (Signed),

A RANDERSON,

“ Town Hall, Skipton,  
January 21st, 1912.

County Inspector under the  
Sale of Food and Drugs Acts.”

To the above must be added 31 samples of new, and two samples of separated milk, taken by myself.

It will be noticed that in no instance was milk so adulterated as to merit legal proceedings against the vendor.

I can only give exact details of the 33 samples which I purchased. Of these 30 samples of New Milk were found to be genuine, and one slightly deficient in fat. The vendor of this deficient sample was warned.

The two samples of Separated Milk were found to comply with the standard requirements for that commodity.

In view of the present agitation, which has for its object the lowering of the Government Standard for genuine milk, it is interesting to notice that the average sample taken locally, is well above the standard as at present fixed.

|                                                               | Total<br>Solids. |     | Solids<br>not fat |     | Fat. |
|---------------------------------------------------------------|------------------|-----|-------------------|-----|------|
| Standard fixed by Board of Agriculture                        | 11.5             | ... | 8.5               | ... | 3.0  |
| Average of 33 Samples taken during<br>1911 in Keighley ... .. | 12.89            | ..  | 9.09              | ... | 3.8  |

From an examination of these figures, only one conclusion is possible, that is, that the present standard is reasonable, and one which local farmers find it easy to comply with. It is to be hoped that whatever alteration is made in the standard for genuine milk, a lower quality will never be permissible.

### **Adulteration of Foods.**

It is satisfactory to find that the persons found guilty of imposing a fraudulent article—margarine for butter—upon a credulous public were dealt with according to the merits of the case. It does not always happen that the person who designs to cheat the public in the matter of adulterated food receives his due reward.

The samples of Sausages and popular “ Ducks ” complained of were richly dosed, quite unnecessarily, with boron preservatives, and it is hoped that the action taken by the County Council may prevent a recurrence of this form of adulteration.

### **Fried Fish Shops.**

I have no fault to find with the quality of the food retailed from the 40 fish shops in the Borough, nor have I received any complaints as to nuisances arising from the cooking.

One would like to see, however, a change in the method of collecting and disposing of fish cuttings and refuse.

It is now the custom of some tradesmen to deliver their refuse to our Depôt daily, which is a very satisfactory arrangement, but others have been found to dispose of their refuse in manure middens, or other unsuitable places.

A special galvanised iron receptacle with close fitting cover should be provided for refuse at all fish shops, and this receptacle should be emptied and cleansed daily.

Where no other satisfactory means of disposal are available, the refuse can be delivered to our Depôt.

The fried fish shop is a boon in many neighbourhoods, and when well conducted serves a very useful purpose, but it is a business which makes no allowance whatever for any neglect.

## Local Housing Conditions.

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The sanitary housing problem is many sided, and a few phases of it are presented in this section.

### **Sanitary History of Dwelling Houses.**

The information collected under this heading during the year was considerable. A complete or partial history of 1559 houses was obtained, and as occasion served, further details and particulars were added to the 2,300 cards already in use.

The information respecting the dwelling houses in the Borough is slowly accumulating and is proving a very valuable asset to our work. By reference to it, we are able to place any subject of enquiry in connection with a house, or a number of houses, in true perspective and reduce the possibility of arriving at conclusions which would be less reliable if the sanitary history of the premises were unknown.

It is of further use in saving time on subsequent visits to properties, and reduces the questioning of occupiers to a minimum, which is very desirable.

### **Housing Work.**

The Housing and Town Planning Act of 1909, with its widely embracive powers, has had the desired effect of stimulating Local Authorities in the matter of housing their burgesses in good sanitary houses.

Only that part of the above-named Act relating to housing is administered by your Health Committee. Town Planning is a matter for another department.

In putting the new housing machinery into motion a principle was generally adopted, and, I believe, approved by the Local Government Board, that houses should be dealt with in the order known as "worst first." We began in Westgate, and thus carried out this principle to the letter. Had no other housing work been done during 1911, that in Westgate would have provided a good record in itself.

What is now colloquially known as "Housing Work" is divided up into two main branches. The inspection of houses totally unfit for human habitation, and the inspection of all other dwelling houses to see that the same are in all respects reasonably fit. Houses placed in the first class are inspected by the

Medical Officer of Health and myself, and afterwards by the Health Committee, whilst those in the second class are usually dealt with on the report of your Inspecting Officer.

These latter houses are not necessarily dealt with under the Housing Acts. Often the Public Health Acts, or Local Acts give to the Local Authority all the power that is necessary, and these Acts are more simple in operation.

As your Officer, appointed to make inspections under the Housing Acts, I accompanied the Medical Officer of Health on a tour of inspection of all the houses in Westgate. The result of this inspection was that 74 houses were represented as being totally unfit for human habitation, and after inspection by the Health Committee were duly closed by Closing Orders.

No less than 121 houses were found to be not in all respects reasonably fit for human habitation, but were left over for further consideration, as the area containing them was soon afterwards declared to be an insanitary one, and their demolition would become necessary in the event of a projected improvement scheme being carried out.

Other houses in Eastwood Square, Victoria Terrace, Park Place, Park Lane, were inspected in the same way, and the Committee recommended the Council to close certain houses in Victoria Terrace and Park Place. Others were made the subjects of Improvement Notices.

The ordinary routine inspections under the Act were fewer in number than would have been the case had the pressure upon the Department been less acute, but, as will be seen from the tables, quite a number were made, and in seventeen instances the owners, on receipt of a schedule, stating what works were necessary to make their houses in all respects reasonably fit for human habitation, consented to execute the same without Notice.

In other cases Notices were preferred, but in all, the works required were executed, or were in progress or ordered before the close of the year. This I consider eminently satisfactory.

### **Common Defects in Houses.**

Our inspections revealed that many houses were in a damp condition, the absence of proper places in which to store food was not exceptional, defective roofs, walls (internal and external), floors, etc., were frequently found.

Insufficient lighting and air circulation, outside the Westgate area, was not often met with, but with respect to ventila-

tion things were very different, and inadequacy had often to be complained of.

Not all bedrooms have fire places,—and where they have 50 per cent. were found to be closed up,—or windows that will open satisfactorily. These defects, especially in back to back houses, are of some moment, and fortunately can be overcome without great expense to the owners.

Unpaved yards, insufficient W.C. and ashplace accommodation, defective drainage, etc., were all dealt with under the Public Health or Local Acts.

### **Overcrowding.**

No cases of overcrowding came to our notice. Certainly very little, if any, of what may, for convenience, be termed illegal overcrowding—that is where all persons over 12 years of age have less than 300 cubic feet of air space in the sleeping room,—exists within the Borough. This is accounted for by the very large sized bedrooms found in the older houses.

The minimum amount of air space necessary for human beings is not defined by law,—it is for cows—but as 300 cubic feet are necessary for a lodger in a common lodging house, it is considered reasonable to require a similar amount in the sleeping rooms of a dwelling house.

This amount may be sufficient in the cottages on the hill tops, but in houses situate in yards, squares, or congested areas it is far too little.

Though we have no actual overcrowding, it is not unusual to find houses where the occupants are on the verge of it, and morally are badly overcrowded. In these cases the people concerned invariably say they are seeking larger houses, but find them difficult to obtain. This, I am convinced, is sometimes true, there does appear to be a dearth of good cottages at about 4/- per week, but in many cases it is merely an excuse, and the only members of the family really wanting to remove to more healthy and congenial surroundings are the younger children—and they have no say in the matter.

## **Summary of Housing Work done during the year 1911.**

### **Inspections.**

|                                                                                            |     |     |     |       |
|--------------------------------------------------------------------------------------------|-----|-----|-----|-------|
| Total number of houses inspected                                                           | ... | ... | ... | 260   |
| Total number of houses found to be totally unfit for human habitation and closed           | ... | ... | ... | 77    |
| Total number of houses found to be not in all respects reasonably fit for human habitation | ... | ... | ... | 183   |
|                                                                                            |     |     |     | — 260 |

## Result of the Inspections.

### Houses Closed.

|                                                                                                                                            |        |    |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------|----|
| No. of Closing Orders made and served in respect of ordinary inhabited dwelling houses                                                     | ... .. | 20 |
| No. of Closing Orders made and served in respect of uninhabited dwelling houses                                                            | ... .. | 46 |
| No. of Closing Orders made and served in respect of inhabited underground sleeping rooms (sec. 17 (7) Housing and Town Planning Act, 1909) | ... .. | 8  |
| No. of Closing Orders made and served in respect of uninhabited underground sleeping rooms                                                 | ... .. | 3  |

### Houses to be Improved under Notice.

|                                                                                                                             |        |    |
|-----------------------------------------------------------------------------------------------------------------------------|--------|----|
| No. of houses in connection with which Notices were served to make them in all respects reasonably fit for human habitation | ... .. | 42 |
|-----------------------------------------------------------------------------------------------------------------------------|--------|----|

### Houses to be Improved without Notice.

|                                                                                       |        |     |
|---------------------------------------------------------------------------------------|--------|-----|
| No. of houses, the owners of which agreed to carry out recommendations without Notice | ... .. | 17  |
|                                                                                       | —      | 136 |

### Houses Sub-judice.

|                                                                                          |        |       |
|------------------------------------------------------------------------------------------|--------|-------|
| Houses in Westgate Area left over pending preparation of proposed Improvement Scheme     | ... .. | 86    |
| Houses in Westgate belonging to the Corporation already closed, or intended to be closed | ... .. | 35    |
| Houses in Eastwood left over for further consideration                                   | ... .. | 3     |
|                                                                                          | —      | 124   |
|                                                                                          |        | <hr/> |
|                                                                                          |        | 260   |

### Improved Houses.

|                                                                                 |        |    |
|---------------------------------------------------------------------------------|--------|----|
| No. of dwelling houses made in all respects reasonably fit for human habitation | ... .. | 19 |
| No. of dwelling houses at which work is in progress or ordered                  | ... .. | 40 |
|                                                                                 |        | —  |
|                                                                                 |        | 59 |
|                                                                                 |        | —  |

## Summary of Improvements to Dwelling-Houses.

|                                                  |     |     |     |    |
|--------------------------------------------------|-----|-----|-----|----|
| Dampness in walls prevented                      | ... | ... | ... | 8  |
| Light and ventilation improved                   | ... | ... | ... | 8  |
| Provided with new or improved drainage system... |     |     |     | 14 |
| Provided with pure water supply                  | ... | ... | ... | 2  |
| Roofs re-constructed or repaired                 | ... | ... | ... | 7  |
| House walls (outside) pointed and repaired       | ... |     |     | 5  |
| Yard surfaces paved or re-paved                  | ... | ... | ... | 5  |

(This Summary does not include any work at the 39 houses where the whole of the works required are not yet completed.)

NOTE.—Uncleanliness, choked or defective drains and closets, defective cisterns, keeping of animals, or other nuisances discovered during inspections under the Housing and Town Planning Act, are dealt with by Notices under the Nuisance Clauses of the Public Health Acts, and are included in Table II, on pages 74--77.

Insufficient drainage, closet, or ashplace accommodation is dealt with under the Keighley Corporation Local Acts, and the Public Health Act, 1875. Particulars of this is also included in Table II, pages 74--77.

### Records.

The records of all housing work are carefully prepared and kept, the system in use being the Card Index, and although much time is thus occupied, it is well worth it, as the records are very useful. We are now compelled by law both to make and keep them.

## Houses Closed as unfit for Human Habitation during the year 1911.

**Westgate.**

|     |                  |
|-----|------------------|
| 41  | Westgate.        |
| 43  | "                |
| 74  | "                |
| 76  | "                |
| 78  | "                |
| 82  | "                |
| 84  | "                |
| 65  | Smith's Yard.    |
| 69  | "                |
| 79  | Harrison Square. |
| 81  | "                |
| 83  | "                |
| 85  | "                |
| 87  | "                |
| 89  | "                |
| 91  | "                |
| 92  | Westgate.        |
| 94  | "                |
| 125 | Harrison Square. |
| 127 | "                |
| 129 | "                |
| 131 | "                |
| 133 | "                |
| 139 | "                |
| 56  | Ling Alley.      |
| 58  | "                |
| 60  | "                |
| 62  | "                |
| 16  | Baptist Square.  |
| 18  | "                |
| 20  | "                |

**Mill Street.**

|    |              |
|----|--------------|
| 16 | The Ginnell. |
| 18 | "            |
| 20 | "            |
| 22 | "            |
| 24 | "            |
| 26 | "            |
| 28 | "            |
| 32 | "            |
| 34 | "            |
| 44 | "            |

**Mill Street—continued.**

|    |              |
|----|--------------|
| 46 | The Ginnell. |
| 48 | "            |
| 50 | "            |
| 52 | "            |
| 54 | "            |

**Oakworth Road.**

|     |                 |
|-----|-----------------|
| 2   | Oakworth Road.  |
| 10  | "               |
| 80  | "               |
| 82  | "               |
| 84  | "               |
| 44  | Quebec.         |
| 46  | "               |
| 52  | "               |
| 54  | "               |
| 56  | "               |
| 58  | "               |
| 60  | "               |
| 68  | "               |
| 70  | "               |
| 98  | Boocock's Yard. |
| 102 | "               |
| 104 | "               |
| 106 | "               |
| 108 | "               |
| 128 | Naylor's Yard.  |
| 130 | "               |
| 132 | "               |
| 134 | "               |
| 10  | Ivy Place.      |
| 12  | "               |
| 14  | "               |
| 26  | "               |
| 28  | "               |

**Malvern Place.**

|    |                |
|----|----------------|
| 24 | Malvern Place. |
|----|----------------|

**Park Place.**

|    |             |
|----|-------------|
| 52 | Park Place. |
| 54 | "           |

## Common Lodging-Houses.

We have within the borough four registered Common Lodging Houses, one of which is registered for a period of one year at a time. These houses provide accommodation for 350 lodgers.

As far as cleanliness is concerned, I have no complaint to make, the houses, beds and sanitary conveniences have been kept clean enough, much better than many ordinary dwelling houses. I have also to record that during the year, when a suspicion of small pox was hovering over us—quite unknown to the general public—the keepers freely gave any assistance required of them.

The Bye-laws have not always been observed. Overcrowding occurred on at least one occasion. Failure to register deputy keepers in two instances were contraventions of the Public Health Acts Amendment Act, 1907. For these offences the keepers were asked to attend before the Health Committee and were warned.

Two of the Lodging Houses were previously mill or warehouse premises, and the spacious, lofty, well-lighted, and efficiently ventilated rooms make admirable sleeping wards, or day rooms. The other two, never were anything but dwelling houses, and not very good at that.

In one instance a large single house was adapted, and it is most unsuitable. Efficient lighting and ventilation are impossible, and in a common lodging house these are absolutely indispensable. The sanitary conveniences are structurally most unsatisfactory and badly situated. The building is structurally defective and was, during the year, represented to the Health Committee as being unfit for human habitation, but the matter was adjourned in view of the proposed Westgate Improvement Scheme, in which this house would be involved.

The other lodging house referred to consists of a series of old houses, situate around an open yard. Here again, from a sanitary point of view, the premises leave very much to be desired, and are shortly to receive the special consideration of the Committee.

The Health Committee visited the whole of the Lodging Houses on one occasion about midnight and were conducted through all the sleeping rooms.

## **Houses Let in Lodgings.**

It falls to the lot of the Sanitary Inspector to see many phases of life, but I know of none so apparently hopeless or unreal as that passed—it is scarcely lived—in one small room enclosed by four dirty walls, a dilapidated ceiling, and a defective floor.

Houses in the strict literary sense I suppose they are, but no one would call them homes, and yet a number of children have to spend their most impressionable years amidst such surroundings.

We have a few of this character and some better suited, but the whole arrangement is quite unsatisfactory. Our powers are too limited. We have no choice in what rooms shall be registered. All we can do is register when application is made, and then enforce a set of bye-laws which for ambiguity could not be excelled.

With common lodging houses it is different. The buildings have to be suitable and the keepers registered before they can commence business, and the Local Authority have power of refusal. Again, the bye-laws are definite and comprehensive even to specifying the clothes for the beds, but with houses let in lodgings no such power obtains, with the result that our lodging houses are well kept, whilst the other houses are often ill kept.

The system is not at all a satisfactory one and should be subjected to stricter regulations.

We had trouble during the year respecting the cleansing of these houses and sanitary conveniences.

There are 27 houses let in lodgings in the town, but I understand that this number will be shortly reduced by nearly one half.

## **Van Dwellings.**

The caravans visiting the town on fair days and at other times, have been visited and enquiries made re infectious diseases.

All van dwellers were reported to be in good health, and we have no reason to suppose that any infection has been spread in this way.

On fair days the usual custom was observed with respect to water supply and sanitary conveniences, portable closets being hired from this department at a nominal charge.

## Sanitation in Factories and Workshops.

### **Factories.**

---

His Majesty's Inspectors of Factories are charged with the sanitary condition of factories and mills, and only in so far as the abatement of nuisances is concerned have we statutory qualification for inspectorial work. Our advice, however, is often sought with reference to sanitary improvements at these places.

### **Workshops.**

With workshops and workplaces it is different. The Local Sanitary Authority is the responsible body for the sanitary condition of these places. In the Borough there are at present 290 workshops on the Register. These premises, at a considerable cost in time, are inspected periodically, and we seek to obtain and maintain a reasonable standard of sanitary efficiency therein.

The value of our work in this direction is often underestimated, but I regard it as very responsible and important.

Roughly speaking, a man spends on an average about one-third of his life at home, one-third at work, and one-third in divers places, varying with his desires and inclinations. We are now compelled by law to see that his home is in all respects reasonably fit for habitation, or, in other words, we must insist that he shall have a good sanitary dwelling to live in.

To do this, and at the same time permit his workshop to remain a harbinger of ill-health, would be consummate inconsistency, and one of the best possible means of negating well-planned and carefully-executed housing work.

We are thus called upon to provide that at least two-thirds of a man's life shall be spent amidst hygienic surroundings, and whilst much striving after this ideal has already taken place, it is no use denying the fact that much remains to be done.

During the year 1911, I received 26 notifications from His Majesty's Inspector of Factories of the opening of new workshops, where it was reported the following trades would be carried on:—

**TABLE XI.**  
**NEW WORKSHOPS.**

|                             |   |                            |    |
|-----------------------------|---|----------------------------|----|
| Basket Making ... ..        | 1 | Boot Repairers ... ..      | 3  |
| Baking ... ..               | 2 | Tailors ... ..             | 6  |
| Tinners and Plumbers ... .. | 2 | Worsted Mending ... ..     | 1  |
| Dressmakers, &c. ... ..     | 4 | Picture Framing ... ..     | 1  |
| Automobile Engineer ... ..  | 1 | Stone Mason ... ..         | 1  |
| Watchmaker ... ..           | 1 | Furnisher ... ..           | 1  |
| Florist ... ..              | 1 | Electrical Engineer ... .. | 1  |
|                             |   | Total ... ..               | 26 |

**TABLE XII.**  
**REGISTERED WORKSHOPS.**

|                                                  |     |                                |     |
|--------------------------------------------------|-----|--------------------------------|-----|
| Tailors ... ..                                   | 33  | Carried forward...             | 172 |
| Dresses, Dressmakers and<br>Milliners... ..      | 61  | Cycle and Motor Repairers ...  | 7   |
| Hosiery, Shirtmakers and<br>Underclothing ... .. | 7   | Pork Butchers ... ..           | 11  |
| Shoemakers, Cloggers and<br>Saddlers ... ..      | 48  | Bakehouses (ordinary) ... ..   | 54  |
| Plumbers, Tinsmiths, etc. ...                    | 11  | do. (underground) ..           | 16  |
| Watchmakers and Jewellers ..                     | 9   | Cabinet Makers, Polishers, &c. | 5   |
| Tripe Dressers ... ..                            | 3   | Blacksmiths ... ..             | 2   |
|                                                  | 172 | Electrical Engineers... ..     | 3   |
|                                                  |     | Miscellaneous Trades ... ..    | 19  |
|                                                  |     |                                | 289 |

### **Domestic Workshops.**

A domestic workshop differs from the ordinary workshop inasmuch as the only persons employed or engaged therein are members of the same family, and usually resident on the premises.

We have, within the Borough, 52 such workshops, where the following trades are carried on:—

TABLE XIII.

**DOMESTIC WORKSHOPS.**

|                             |    |
|-----------------------------|----|
| Bakers (ordinary) ... ..    | 23 |
| Bakers (underground) ... .. | 2  |
| Tailors ... ..              | 5  |
| Shoemakers, etc. ... ..     | 4  |
| Dressmakers, etc. ... ..    | 11 |
| Pork Butchers, etc. ... ..  | 5  |
| Jeweller ... ..             | 1  |
| Laundry ... ..              | 1  |
|                             | —  |
|                             | 52 |
|                             | —  |

The following notices were received from His Majesty's Inspector during the year, pointing out defects remediable under the Public Health Acts:—

|                                        |   |
|----------------------------------------|---|
| Workshops requiring limewashing ... .. | 2 |
| Foul Factory W.C. accommodation ... .. | 1 |
| Foul Workshop urinal ... ..            | 1 |
|                                        | — |
|                                        | 4 |
|                                        | — |

The whole of the defects to which our attention was drawn have been remedied.

**Offensive Trades.**

The offensive trades in the Borough remain as before, and are as follows:—

|                                     |   |
|-------------------------------------|---|
| Tanners and Leather Dressers ... .. | 5 |
| Tallow Melter ... ..                | 1 |
| Tripe Boilers ... ..                | 3 |
| Gut Scraper ... ..                  | 1 |

These businesses have been conducted satisfactorily, and no complaint against them has been recorded on our books during the year.

The powers contained in the Public Health Acts Amendment Act, 1907, authorising the Local Authority to extend the list of scheduled trades have not yet been acted upon, owing entirely to the pressure on the department.

## Infection and Disinfection.

---

One had vainly hoped that the year 1911 would have seen great diminution in this Department.

Disinfection work was the cause of the extra pressure complained of in 1910, but far from being reduced, it was further increased in 1911. By taking a member of the indoor staff from certain clerical work to perform disinfection, we were able to cope with it, but it was very unsatisfactory, and our records, as a result, fell into arrears.

From the Medical Officer's Report it will be seen that 511 cases of Scarlet Fever, 90 cases of Diphtheria, and 4 cases of Typhoid Fever were notified, all of which had to be followed by inspection and disinfection of the premises involved.

### **Scarlet Fever.**

No less than 396 houses were infected by Scarlet Fever during the year. At 23 of these, insanitary conditions were found to exist. These houses were dealt with and made sanitary forthwith.

### **Diphtheria.**

This disease occurred in 83 different houses. On inspection, insanitary conditions were found to obtain in 31 instances.

I would especially point out, as a fact of some importance, that at 34 of the houses, the rainwater fall spouts were found to be in direct communication with the sewer, and in 15 instance were quite close to the windows of the patient's bedroom.

I refer, of course, to the probability of these rainwater fall spouts acting as sewer ventilators. Where there is a probability of sewer gas entering into inhabited bedrooms, there is, in my opinion, a condition created which predisposes to Diphtheria and other septic throat diseases.

Sewers require adequate ventilation, but rainwater fall spouts are not intended for this purpose and should not be so used.

### **Typhoid or Enteric Fever.**

Four cases, in four different houses, were notified, and conditions not satisfactory were found in two instances.

This figure is a very small one, and Typhoid Fever is happily becoming a rarity. This occasions no surprise whatever to the Health Official, who is busily engaged removing such allies as tub closets, privy middens (except for a few at outlying farms, these have completely gone from Keighley), and general insanitary conditions, which, if they are not the only, are at least potent allies.

Sanitation has banished typhus fever, is banishing typhoid, and, it is hoped, will ultimately banish tuberculosis from our midst.

### **Tuberculosis.**

This disease was active, as usual, tapping and sapping useful lives, but it is satisfactory to record that we had less difficulty than formerly with disinfection. Only on one occasion was our offer refused, whilst on many our services were requested, and always freely given.

The Tuberculosis Order of 1910, which makes this disease notifiable, is expected to increase the amount of disinfection work that will have to be carried out.

### **Other Diseases.**

Our services have been requested on various occasions following malignant diseases, cancer, &c., and, in reason, we have placed our services at the disposal of applicants.

Our method of disinfection remains the same; we either spray all the rooms with a strong solution of formaldehyde, or fumigate with formalin tablets, or both. Each house is treated according to its peculiar circumstances.

**TABLE XIV.**

| <b>Return of Disinfection Work.</b>          | <b>1910.</b> | <b>1911.</b> |
|----------------------------------------------|--------------|--------------|
| Inspection of Infected Houses ... ..         | 781          | 478          |
| Re-inspections of Infected Houses ... ..     | 363          | 500          |
| No. of Infected Houses Disinfected .. ..     | 584          | 384          |
| No. of Infected Rooms Disinfected ... ..     | 850          | 600          |
| No. of Houses Disinfected after Phthisis ... | 51           | 34           |
| No. of School Classrooms Disinfected ...     | 28           | 83           |

TABLE XV.

| Disinfectants used, and for what purpose.                                   | 1911       | 1910       |
|-----------------------------------------------------------------------------|------------|------------|
| "Cyllin" and "Izal" Distributed to Occupiers of Infected Houses or sold     | 200 galls. | 160 galls. |
| Formaldehyde (40 per cent. solution) used in Spraying Rooms and Schools ... | 8 galls.   | 4 galls.   |
| Paraformaldehyde Tablets vapourised in Alformant Lamps ... ..               | 32 lbs.    | 36 lbs.    |

The above quantities do not include the disinfectants used at the Sanitary Dépôt in Lawkholme Lane.

## Atmospheric Pollution.

### **Smoke Nuisance.**

This old and persistent form of nuisance, injurious alike to health and temper—judging from many housewives' complaints—still continues to work havoc amongst us, but the times are changing, if only slowly.

Demonstrable scientific fact is robbing the old and inveterate smoker of his glory. The amount of smoke poured forth to-day is not, as it once was, an index of thriving trade; it is now known to be bad economics, and this factor, equally as much as the Inspector, is making for smoke prevention.

Locally, our sky has been blackened less often, and the town befogged more infrequently than in previous years.

In 1910, several important firms changed from the system of hand, to machine firing, and in the Report for 1911 one ventured to prophesy a successful result for 1911. Such proved to be the case, and it may now be asked, "Why cannot black smoke from factory chimneys be prevented altogether, if the firms having the heaviest loads, and with the greatest number of boilers, can totally prevent it?"

It can be prevented, but it never will be while we have plants working at abnormal pressures—adequate boiler power is a *sine qua non* to smoke prevention—or while unintelligent and careless hand firing is permitted.

An expert hand firer, given ordinary and reasonable conditions, is sufficient in himself to prevent smoke and save fuel. But how many are expert? It is not the custom to pay expert wages for this work, but it would prove a financial saving to do so.

I am of opinion that, in the interests of public health, a course of special instruction should be provided by the municipality, for those responsible for the important work of smoke prevention.

Many of the inhabitants do not, perhaps, realise how important smoke prevention really is, but a few moments consideration should suffice to convince an interested party.

### **Atmospheric Impurities.**

We have 121 mill or factory chimneys in the populated parts of the Borough, and from these it may be estimated that soot—by which is meant mineral and carbonaceous matter,

hydro-carbons, tar, &c., all solid impurities—is precipitated indiscriminately into the atmosphere to the extent of 15 to 20 cwts. per acre per annum.

To this must be added the products of the dwelling house chimneys, which increase the total considerably.

This suspended matter is the actual basis for the formation of thick, damp fogs, and cannot be argued to be anything but injurious to the health of the unfortunate person who has to depend upon it, even occasionally, to re-vitalise his system.

To sufferers from respiratory diseases it is considered to be specially harmful. Then why should it be allowed to continue, in face of the fact that prevention is possible, and moreover, is sound economy?

This is the question which presents itself to your Health Committee, and in fixing a low maximum of emission (four minutes black smoke in the hour) and in following up cases of default, much permanent good has been done towards purifying the town's air supply.

The good thus done will be permanent, because it has been wrought by the process of education; whereas, when improvements have been effected by summary punishment, there are frequent relapses, and a prejudice is sometimes created which makes educational work extremely difficult. Still, these are the only two means at the disposal of the Committee, and when the first is spurned, only the alternative is left. We have strongly emphasised the first, and found it successful.

### **Dwelling-House Chimneys.**

Referring again to dwelling house chimneys, it is estimated that a "good" chimney wastes at the least 6 per cent. of the coal used in the fire grate. When we consider that 11,000 chimneys in the Borough are thus concerned, this wastage is tremendous, but the change from coal fires to gas or electricity proceeds very slowly indeed, and as this is the only remedy, we shall have to bear with this form of nuisance for some considerable time.

The dwelling house chimney has the law on its side, which says that it can do no wrong, but from a health point of view smoke from coal fires is all alike, and it is only a question of density, whether it comes from the factory or the dwelling house chimney. Therefore all that is possible should be done to prevent it coming from either.

The smoke from dwelling house fires could be materially reduced if householders would adopt the principle of keeping up the fire by putting on small quantities of coal at more

frequent intervals, instead of allowing the fire to burn low, and then making it up by the addition of large quantities of coal.

I think if this policy could be universally adopted, it would be found that saving smoke would be saving coal, and the benefit to the public health would be accompanied by a corresponding benefit to the private purse.

The following table gives the details of the year's observations and results, and the figures for 1910 for the purposes of comparison:—

TABLE XVI.

| Particulars of Smoke Observations.                                                                          | 1911 | 1910 |
|-------------------------------------------------------------------------------------------------------------|------|------|
| Number of chimneys of which observations were taken ... ..                                                  | 121  | 120  |
| Number of observations taken ... ..                                                                         | 2499 | 2479 |
| Number of observations shewing little or no black smoke ... ..                                              | 2338 | 2308 |
| Number of observations of 60 minutes' duration, shewing black smoke ... ..                                  | 156  | 171  |
| Average number of minutes of black smoke per chimney during the above 156 observations                      | 2'4  | 2'95 |
| Number of observations shewing black smoke at or above the maximum of 4 minutes per hour ... ..             | 39   | 26   |
| Average number of minutes of black smoke per hour from the chimneys exceeding the maximum ... ..            | 6'3  | 8'07 |
| Maximum number of minutes of black smoke emitted by any one chimney during a 60 minutes' observation ... .. | 19   | 22   |
| Number of Notices Served ... ..                                                                             | 16   | 24   |
| „ Letters written ... ..                                                                                    | 17   | 9    |

## Public Cleansing Work.

---

A large increase in the cleansing work has to be reported. It will be remembered that in the Spring of 1911 the cleansing staff was strengthened; the result of this has been that 500 extra miles of roads have been swept, and 65 extra tons of refuse from the streets have been collected and disposed of.

The additional cost, when compared with work done, was thoroughly well justified, and at once reduced complaints to a minimum.

Ratepayers are now coming to see the value of cleanliness, and readily complain of any offensive accumulation or insanitary condition inimical to health. This is a tendency to better things, and a reflex of the Health Department teaching of the past decade.

Once this value is correctly estimated, disease and death rates must inevitably show a decline. To this end a clean town is an absolute necessity. We know that various disease creating bacilli live, and move, amidst the dirt and dust on our streets, and probably in our domestic refuse. Therefore the work compels careful and constant attention.

The importance of public cleanliness is not easily estimated. From a sanitary point of view it is obvious. Has it not also a value as the difference between example and precept?

The Local Authority sits in judgment upon householders and houseowners in the matter of cleanliness on private property. Clean houses and clean yards we must have. Are clean streets and roads less important? One thing appears evident, that is, that it is easier to secure a greater degree of domestic cleanliness where public cleanliness can be held up as an example.

Taking the year through, our routine work was very regularly performed. Such happenings as snowfalls and severe frosts, were not much in evidence, and these are the great dislocators of all Cleansing Departments.

The cleansing work devolving upon the Health Department is as follows:—

|                                |                            |
|--------------------------------|----------------------------|
| Scavenging of Paved Streets.   | Removal and Disposal of    |
| Watering of Paved Streets.     | Domestic Refuse.           |
| Gully Cleansing in Streets.    | Removal of Nightsoil.      |
| Snow Removal from Streets.     | Removal of Trade Refuse.   |
| Sanding and Ashing of Streets. | Cleansing of Private House |
|                                | Gullies.                   |

Works incidental to the above, such as tarring and washing of tubs, repairs, etc., are carried on at Lawkholme Depôt.

TABLE XVII.

| The following is a return of work done :—         | 1911.         | 1910.         |
|---------------------------------------------------|---------------|---------------|
| Streets Swept ... ..                              | 1,508 Miles   | 1096·5 M'ls   |
| Street Sweepings collected and disposed of ...    | 1,998 Tons    | 1,933 Tons    |
| Street Gullies emptied ... ..                     | 51,000        | 48,000        |
| Street Gully Refuse collected and disposed of ... | 650 Tons      | 642 Tons      |
| Sand and Ashes used on the streets ... ..         | 81 Tons       | 325 Tons      |
| Water used on the streets ... ..                  | 359 900 Galls | 211,830 Galls |
| Number of Ashtubs emptied ... ..                  | 399 500       | 389,550       |
| Domestic Refuse collected and disposed of ...     | 8,825 Tons    | 8,416 Tons    |
| Excreta Tubs emptied ... ..                       | 138,940       | 139,696       |
| Nightsoil collected and disposed of ... ..        | 1,883 Tons    | 2,183 Tons    |
| Refuse from Privy Middens ... ..                  | 154 Tons      | 150 Tons      |
| Trade Refuse collected ... ..                     | 486 Tons      | 532 Tons      |
| Snow collected and removed ... ..                 | 12 Loads      | 2,242 Loads   |
| Grit used on Wood Pavements ... ..                | 15 Tons       | ...           |

Special work, such as the collecting of horse droppings, paper, etc., from the principal thoroughfares, collecting, preparing, and delivering ashes to various parts of the town in readiness for frosty weather; changing, washing and tarring 2,940 excreta tubs; tarring ashtubs, etc., is not included, as this work cannot be conveniently set out in figures.

### Street Scavenging.

The County Roads, i.e., Skipton Road, Oakworth Road (part) and other macadam roads are cleansed by the Highways Department, but the great majority of the streets and roads are paved and cleansed by your special Cleansing Staff.

From the figures given it will be found that 15,000 miles of street sweeping was done during the year, which is 500 miles in excess of 1910. The work of the street orderlies was also increased and the principal streets were, in consequence, much better and more promptly attended to; droppings, paper, etc., being removed from the street surface with less delay.

Our work is frequently interfered with, by carters loading carts too full, and allowing easily crushed materials, such as coal, to be shed on to the roads, soon to be churned into mud by the traffic. This, first of all, is sheer waste, and secondly a violation of the Bye-laws. The attention of various carting agents has had to be drawn to the matter during the year. We look for an improvement in this connection.

### **Street Gullies.**

With the attention now given, the street gullies in the Borough would give little trouble if only they had fair treatment, but so long as people will insist upon using them as receptacles for tea leaves, excreta, and house refuse, people living opposite to them will continue to complain of a nuisance.

This insanitary and often idle practice is one which requires stopping, and the Health Committee is prepared to take proceedings, but it is difficult to detect offenders, as the practice is often carried on under the shadow of night.

The gullies in the centre of the town are now cleansed weekly, instead of monthly as in former times, the whole of the others are cleansed monthly, and all are flushed after cleansing when required. Refuse is no longer deposited on the streets to await the collecting cart, except under special circumstances, but is at once emptied into pails and carried direct to the slop cart.

### **Private House Gullies.**

The whole of the house gullies in the Borough, 17,077, have been thoroughly cleansed by our own workmen during the year.

This is useful work so far as it goes, but I have never felt, that the results justify the expenditure, as the gullies are again in need of a thorough cleansing a month later, therefore, whilst an annual cleansing is better than none, monthly attention is required to keep the gullies in a fairly satisfactory condition.

Again, I find that occupiers neglect to cleanse their gullies because "the Corporation will be coming to clean them," and gullies may be left ten or eleven months, awaiting our attention, when a few buckets of water occasionally would do all that was necessary.

### **Snow Removal.**

This fluctuating quantity is the bane of the Cleansing Superintendent. What with the difficult task of obtaining additional horses and suitable men, and the complainings of an

impatient public, it is a cause of much anxiety. The year under review was a good one from this point of view. Only two falls of any note took place, and neither of these was severe.

### **Gritting, Sanding, and Ashing of Streets.**

During the year a trial of "Bridport Grit" was made for gritting wood pavements, which, at various times become treacherous for horse and motor traffic. The grit is composed of small nodules of flint, which are not pulped or crushed by traffic, but are pressed into the surface of the blocks and produce a roughened surface which is very satisfactory and much approved of. The Committee have decided to continue to use this grit for wood pavements.

The sanding and ashing of footpaths is confined, fortunately to frosty weather. The town being hilly, and consequently many of the streets having a fair gradient, it is work which, like snow removal, requires prompt attention, if accidents to pedestrians are to be prevented. The ashes used are finely riddled engine ashes, and we distributed for this purpose during the year 81 tons. Local sand is used for footpaths in the principle streets.

### **Street Watering.**

The memorable summer of 1911 called for much street watering for dust laying and cooling purposes. 359,900 gallons of water were used, and, but for the saving brought about by the use of patent sprinklers, the number of gallons would have been appreciably increased.

A soluble disinfectant is mixed with all water used for street watering.

## **Refuse Removal.**

### **Domestic Refuse.**

We now have, approximately, 9,000 ashtubs in use in the town. Of these 6,500 are emptied weekly, and during periods when refuse is light and less in quantity, perhaps 500 more are added from the fortnightly list. No less than 2,500 tubs are attended to fortnightly only, and these are in the residential districts of Showfield, Utley, Knowle Park, etc.

In the Newtown area we remove the refuse and cleanse the huge common ashplaces (wherein the tubs are kept) twice weekly, and it is not too often.

The removal of refuse is a costly matter, but is very necessary from a hygienic point of view. Unfortunately hundreds of people will persist in using the ash receptacles for

vegetable and other putrefactive refuse, which should be burned. Many ashplaces are so placed that the nuisance thus caused affects the occupiers of several houses to the same extent, when only one is to blame.

This is a difficulty which must arise in the older parts of the town, owing to the grouping of conveniences, which cannot be avoided where houses are built in blocks with no private yard adjoining each house.

The Health Committee have resolved to enforce the provisions of the Public Health Amendment Act, 1890, with respect to misuse of conveniences, and notices have been posted to this effect. See Appendix, page 119.

### **Trade Refuse Removal.**

This is mostly done by contract or special arrangement with the firms who require our services. Charges are made for the work, based upon quantities, etc., but ordinarily a charge of 2/6 per load is made. Fishmongers are allowed to take their refuse daily to the Lawkholme Depôt, from whence it is removed by our own teams at special low rates.

### **Nightsoil Collection Removal.**

It is one of the most pleasing of duties to report that this is a diminishing quantity. The sooner one can write "no removal necessary" the better, for one cannot review with any satisfaction a system which entails the removal through our streets of nearly 2,000 tons of crude excrement annually. There are 2,957 tubs still in use and the whole of them are now cleansed weekly with the exception of a few on outlying farms.

Numerous complaints have again been made against the unsightly conveyances which nightly pollute the fresh moorland air.

The method of removal is tied to the system of conservancy, and until the tub closets are completely gone the "armoured cruse" will have to be tolerated. Surely the day of the "tub" is passed. Wrong in principle, wrong in practice, it is without a virtue to commend it.

## Private Improvement Works.

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Our work in this department has not been so great as in previous years. Ordinary constructive works we do not undertake, being of opinion that it is desirable for private contractors to carry out all works under official supervision.

We do not hesitate to accept orders however, to remove nuisances, arising from choked drains, offensive accumulations, or other minor matters, as we have workmen proficient in this work and the nuisance can usually be removed whilst I, otherwise, should be waiting, perhaps impatiently, for a meeting of the Committee to take place.

The cost of the work done by your staff amounted to £16 os. 1d., the whole of which is recoverable.

## Diseases of Animals Act and Orders.

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The year 1911 was eventful in this connection, and we received notice of a number of Swine Fever outbreaks, but Sheep Scab and Anthrax were absent throughout the year.

We shared in the general epidemic of suspected Swine Fever outbreaks, no less than 24 alarms being given. Not a single case proved positive, but the "outbreaks" cost a lot of labour and much notice serving all the same. Perhaps never more so.

On the premises where suspected Swine Fever was reported, 362 swine were found to be kept. The reported outbreaks led to the closing of 80 adjoining premises, on which were kept 899 pigs, so that restrictions were placed on the removal of 1,261 pigs during the year.

Under the provisions of the Swine Fever Order of 1911 we had, for the first time, to disinfect all conveyances conveying swine to the November Fair, but I am glad to be in a position to report that this Order has now been modified by the Swine Fever Order of 1912.

Under the Swine Fever Order, 1908, I granted three licences to move five pigs from infected premises to a slaughter house for slaughter, and six licences authorising the removal on to infected premises of an aggregate of 32 pigs.

The Superintendent of Police for the Borough informs me that 76 licences were granted to remove 490 store pigs into the Borough during the year, and that 33 licences have been issued authorising the removal of 147 pigs into the Borough for slaughter.

## The Dogs Act, 1908.

For the purpose of placing on record the operation of this Act, I beg to state that Mr. Birkhead, Superintendent of Police, has supplied me with the following figures:—

**TABLE XVIII.**

| No. of Dogs seized | No. of Dogs restored to owners | No. of Dogs sold | No. of Dogs destroyed | No. of Dogs destroyed at Owner's request. |
|--------------------|--------------------------------|------------------|-----------------------|-------------------------------------------|
| 31                 | 13                             | 8                | 10                    | 125                                       |

## Petroleum Acts and Orders Thereunder.

### **Petroleum.**

The storage of Petroleum, which includes Petrol, Benzoline, and other highly inflammable spirits, is an increasing quantity.

Petrol is now used in various trades, and therefore more supervision is required in this department.

The various petroleum stores have been inspected, and samples of the spirit taken from time to time and tested for "flash point."

During the year 19 licences were granted by your Health Committee, giving permission to store 3,090 gallons.

### **Calcium Carbide.**

One application for a licence to store 20 tons of Calcium Carbide was received, and after inspection of the place of storage, was granted.

A perusal of this report must serve to illustrate the onerous and varied responsibilities entrusted to your Health Committee, and one cannot but admire the splendid manner in which the members have faced the many difficult problems and dealt with them.

Before closing one is also pleased to record that the members of the staff—and especially my Assistants—have shown a commendable unanimity of purpose which has found expression in the constant performance of good solid work throughout the year.

I am, Gentlemen,

Your obedient servant,

J. C. DAWES,  
Chief Sanitary Inspector and  
Cleansing Superintendent.

(COPY OF CIRCULAR).

APPENDIX A.

BOROUGH OF KEIGHLEY.

PUBLIC WARNING.

SCARLET FEVER.

Owing to the prevalence of SCARLET FEVER and DIPHTHERIA in the Borough, it is the intention of the Health Committee to prosecute any parent who carelessly exposes any Child or Article of Clothing while in an infectious condition.

Children suffering from Sore Throat, even although there be no rash, should have medical attendance.

TAKE NOTICE. Children who have been exposed to infection, or who have recently had Sore Throat, should not go to School or into a Neighbour's House until certified free from infectious disease.

Penalty for neglect of proper care or for careless exposure, £5.

W. SCATTERTY,  
Medical Officer of Health.

(COPY OF CIRCULAR).

APPENDIX B.

BOROUGH OF KEIGHLEY.

PUBLIC HEALTH DEPARTMENT.

MISUSE OF CLOSETS, ASHPLACES, YARDS, OR PASSAGES.

WARNING TO OCCUPIERS OF HOUSES AND OTHERS.

NOTICE IS HEREBY GIVEN that Legal Proceedings will be taken against any person or persons found misusing any Closet, Ashplace, Yard, or Passage, and thereby causing a nuisance.

By Order of the Health Committee.

J. C. DAWES,  
Chief Sanitary Inspector.

